

30 Day Progress Report to the US EPA

In re: Statoil Eisenbarth Well Pad Site, Clarington, Ohio, Docket No. V-W-14-C-012, Administrative Settlement Agreement and Order on Consent for Removal Action, US EPA Region 5 (effective August 20, 2014)
Reporting Period March 16 – April 15, 2015

Prepared for
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By
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TABLE OF CONTENTS

	<u>Page</u>
EXECUTIVE SUMMARY	2
1.0 INTRODUCTION	3
2.0 SIGNIFICANT DEVELOPMENTS IN PRECEDING 30 DAYS	3
2.1 Actions	3
2.2 Problems Encountered	3
2.3 Samples Collected	4
2.4 Analytical Data Recieved	4
3.0 ANTICIPATED DEVELOPMENTS FOR NEXT 30 DAYS	5
3.1 Scheduled Actions	5
3.2 Anticipated Problems	5
3.3 Planned Resolutions	5
4.0 CONCLUSION	5

Figures

Figure 1: Sediment Analytical Summary

Figure 2: Sediment Summary for TTPC

Figure 3: Surface Water Summary for Acetone, Chlorides, and TPH

Figure 4: Surface Water Summary for TTPC

Appendices:

Appendix A: CTEH Site Activity Logs

Appendix B: ODNR SIR Addendum

EXECUTIVE SUMMARY

Statoil USA Onshore Properties Inc. (Statoil) and the United States Environmental Protection Agency (US EPA), Region 5, entered into an Administrative Settlement Agreement and Order on Consent for Removal Action (AOC), Docket No. V-W-14-C-012, effective August 20, 2014. On March 2, 2015, Statoil received US EPA's conditional approval of Statoil's Work Plan, which was submitted to EPA pursuant to the AOC on September 3, 2014 (initial submittal), and December 23, 2014 (revised submittal per US EPA comments). As specified in Paragraph 19.a of the AOC, Statoil is required to submit a progress report to US EPA every 30th day following receipt of US EPA's approval of the Work Plan. Statoil is submitting this Progress Report (PR) pursuant to Paragraph 19.a. Also as specified in Paragraph 19.a, this PR describes all significant developments during the preceding period, including actions performed and any problems encountered, analytical data received during the reporting period, and the developments anticipated during the next reporting period, including a schedule of actions to be performed, anticipated problems, and planned resolutions of past or anticipated problems. For purposes of this progress report, the reporting period is March 16, 2015 through April 15, 2015.

1.0 INTRODUCTION

This Progress Report (PR) prepared by Moody and Associates (Moody) on behalf of Statoil addresses the areas specified in AOC Section 19.a for the period of March 16, 2015 to April 15, 2015 (i.e., the preceding period) as well as anticipated developments for April 16, 2015 to May 15, 2015 (i.e., the next reporting period).

2.0 SIGNIFICANT DEVELOPMENTS OF THE PRECEDING 30 DAYS (MARCH 16, 2015 TO APRIL 15, 2015)

2.1 Actions Performed

On March 2, 2015, Statoil received US EPA's conditional approval of the Work Plan with modifications (Approval Letter). On March 13, 2015, Statoil submitted a letter to US EPA regarding the Approval Letter, which identified, among other things, concerns with some of the modifications set forth in the Approval Letter. On March 17, Mr. Steve Tink and Mr. James Justice spoke via teleconference regarding the issues described in Statoil's March 13 letter. Mr. Justice indicated that US EPA would soon issue a written response to Statoil's March 13 letter. Statoil has not yet received a written response from US EPA regarding all of the issues identified in the March 13 letter. However, Statoil has received email correspondence from Mr. Justice addressing two of the issues raised in Statoil's March 13 letter: (1) Statoil's request to cease containment and collection of runoff from the Eisenbarth well pad and (2) Statoil's request to cease monitoring activities under the "*Water, Soil, and Sediment Sampling and Analysis Adjustment Plan* (*Adjustment Plan*").

Statoil received authorization from US EPA and the Ohio Department of Natural Resources (ODNR) to cease collection and containment activities of all water discharged from the outfalls associated with the Eisenbarth Pad (both the pad drainage system and the slope drainage system). As of April 10, 2015, Statoil ceased the outfall collection activities.

Statoil has identified two (2) potential background locations in the Sunfish Creek watershed for use in the AOC removal actions required by Paragraph 15.a.ii and 15.a.iii. Statoil submitted these locations to US EPA for review on April 30, 2015.

The Center for Toxicology and Environmental Health LLC (CTEH) continued its three (3) day sampling rotation of surface waters in the watershed surrounding the Eisenbarth Pad in accordance with the *Adjustment Plan* until April 3, 2015, when US EPA authorized Statoil to cease monitoring activities under that plan. Between March 15, 2015 and April 3, 2015, one hundred fifty-four (154) surface water and eighteen (18) sediment sampling locations were monitored and had analysis performed. Data is provided in **Figures 1, 2, 3, and 4**; CTEH Site Activity Logs are provided in **Appendix A**. Statoil ceased these monitoring activities as of April 3, 2015.

The ODNR Site Investigation Report (SIR) Addendum, which details the results of the evaluation of soil and water investigations on the Eisenbarth Pad in March 2015, was submitted to the ODNR on April 14, 2015 and is included as **Appendix B**. On-pad activities summarized in the SIR followed the procedures outlined in the "*Eisenbarth Pad- Ohio Operations Incident Sampling and Analysis Plan*" approved by the ODNR in November 2014. The water quality results of on-site and near-site soil boring locations were summarized and evaluated in the context of established potential on-site constituents.

2.2 Problems Encountered

No problems were encountered in performing any work required by the AOC during the reporting period.

Statoil continues to notice variations in TTPC values, as reported in the April 1, 2015 Progress Report. Ongoing quality control is being performed due to the nature of the compound and the use of a new method. All samples are analyzed using the Liquid Chromatography/Mass Spectrometry/Mass (LC/MS/MS) method, as directed by the US EPA. The HPLC- UV method is used additionally on select samples, including samples in October, 2014, and 25% of all samples collected on or after April 1, 2015, for result confirmation and/or data quality verification as needed. Statoil is working with CTEH to understand the variations and improve the data quality.

On April 9, 2015, Statoil received a request from ODNR representatives to compile and provide a comprehensive data set of all activity, correspondence, reports, and results, as well as additional analysis of event data, from all on-site and off-pad activity associated with the Eisenbarth Pad from June 28, 2014 to April, 2015. Due to the volume and nature of this ODNR request, Statoil requested and received an extension on two (2) US EPA deliverables; the 15.a.i. deliverable deadline was moved from April 27, 2015 to May 27, 2015, and the 15.a.ii. deliverable deadline was moved from June 22, 2015 to July 22, 2015.

2.3 Samples Collected

Between March 15, 2015 and April 3, 2015 CTEH collected eighteen (18) sediment samples and one hundred fifty-four (154) surface water samples from 13 monitoring locations at the well pad, in the unnamed tributary to Opossum Creek (unnamed tributary), Opossum Creek, and an additional background location, for a total of 14 monitoring locations. These monitoring locations were described in the April 1, 2015 Progress Report.

The SIR Addendum submitted to the ODNR on April 14, 2015 details field investigation findings, water quality results, and recommended actions related to additional groundwater samples that were collected at select soil borings on-site and off-pad by Penn E&R on March 18 and 19, 2015. A total of fifteen (15) water quality samples were collected and analyzed for previously established potential on-site constituents. For the fourteen (14) parent samples collected between March 18 and 19, 2015, one (1) field duplicate was collected and submitted for laboratory analysis to verify the reproducibility of the sampling and analytical methods.

2.4 Analytical Data Received

Analytical results for CTEH samples are summarized in **Figures 2-5**, and ODNR sampling results are included in **Appendix B**.

As detailed in the ODNR “*Eisenbarth Pad- Ohio Operations Incident Sampling and Analysis Plan*”, Penn E&R conducted a second round of on-site groundwater quality monitoring and sampling between March 18, 2015 and March 19, 2015. This sampling included the collection of groundwater samples from the

viable monitoring wells and piezometers, field data (pH, temperature, observable water quality, and static water levels), and logging of conditions on-site during the investigation. Water quality samples were analyzed for TTPC, petroleum distillates (benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, indeno(1,2,3-cd)pyrene, naphthalene), acetone, BTEX, isopropyl alcohol, and pH and are reported in this cycle. The analytical data from the March 2015 sampling event was compared to groundwater quality data from the same sample collection points evaluated in December 2014 (**Appendix B**).

3.0 ANTICIPATED DEVELOPMENTS: APRIL 16, 2015 TO MAY 15, 2015

3.1 Schedule of Actions

Monitoring and evaluation of data will continue as outlined in the approved Work Plan. Statoil continues to work towards completion of the 15.a.i deliverable for the US EPA, which is now due on May 27, 2015. The 3-round stream monitoring work of one sampling event after three (3) days of rain, one sampling event after three (3) days of dry, and one sampling event in the fall, is scheduled to be completed between May and September 2015.

3.2 Anticipated Problems

As Statoil receives guidance in regards to the resolution of ODNr oversight and requests, no further problems are anticipated for the following reporting period (April 16, 2015 to May 15, 2015). Statoil does not anticipate any problems in performing work required by the AOC during the next reporting period.

3.3 Planned Resolutions of Past or Anticipated Problems

Statoil is working with CTEH to understand the variations observed in the TTPC data and to improve data quality for this constituent. Statoil is working to address the significant data requests made by ODNr. At ODNr's request, Statoil will provide ODNr with a copy of all correspondence provided to US EPA pertaining to this AOC.

4.0 CONCLUSIONS

This PR described all significant developments during the preceding period (March 16, 2015-April 15, 2015), including actions performed and any problems encountered, analytical data received during the reporting period, and the developments anticipated during the next reporting period (April 16, 2015- May 15, 2015), including a schedule of actions to be performed, anticipated problems, and planned resolutions of past or anticipated problems.

Data from the CTEH surface water monitoring and sampling is provided in **Figures 1, 2, 3, and 4**; CTEH Site Activity Logs are provided in **Appendix A**, and **Appendix B** contains reporting and analytical data associated with the ODNr requested on-site and near-pad sampling events conducted in March 2015.

Statoil's next progress report will be submitted to the US EPA on June 1, 2015 for the April 16, 2015 to May 15, 2015 reporting period.

04012015 REPORT AMENDMENT

TTPC Data

Updated Surface Water Results from April Progress Report

TTPC (GCAL SOP LCMS-001)

Date Collected	Sample ID	Location	Result	
02/18/2015	HAOH0218SW021	SW21	2140 ng/L 1810 ng/L	Detection
02/18/2015	HAOH0218SW006	SW06	< 100 ng/L	Non-detection
03/08/2015	HAOH0308SW018	SW18	311 ng/L	Detection
03/08/2015	HAOH0308SW017	SW17	515 ng/L	Detection
03/08/2015	HAOH0308SW025	SW25	< 100 ng/L	Non-detection
03/08/2015	HAOH0308SW006	SW06	1050 ng/L	Detection
03/08/2015	HAOH0308SW021	SW21	3260 ng/L 2540 ng/L	Detection
03/12/2015	HAOH0312SW011	SW11	< 100 ng/L	Non-detection
03/15/2015	HAOH0315SW023	SW23	< 100 ng/L	Non-detection

Note:

Results presented have not undergone complete QAQC analysis and are presented in a preliminary format.
Laboratory non-detections are reported as "<" followed by the laboratory reporting limit.

FIGURES

Figure 1: Sediment Analytical Summary

Figure 2: Sediment Summary for TTPC

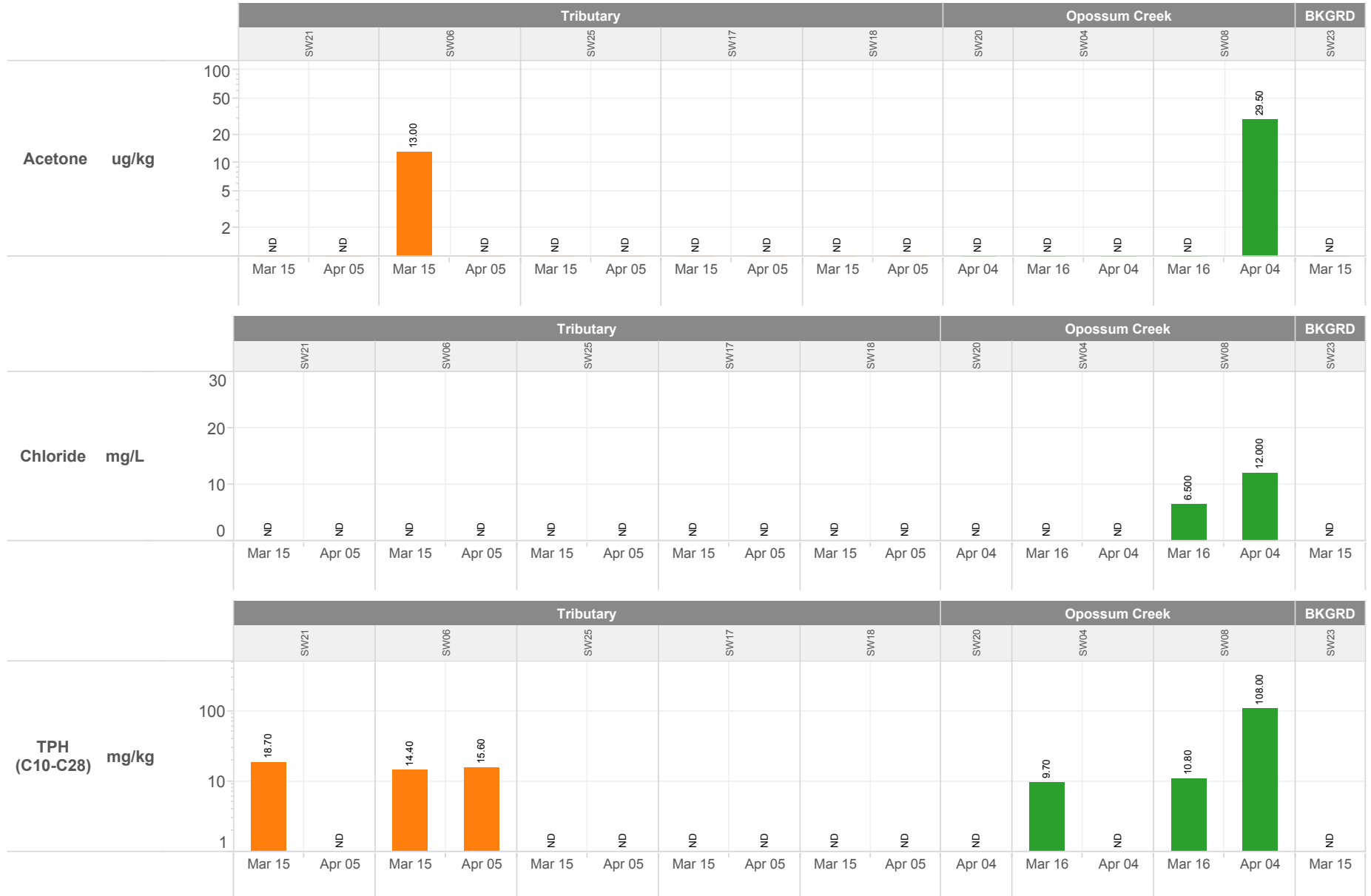
Figure 3: Surface Water Summary for Acetone, Chlorides, and TPH

Figure 4: Surface Water Summary for TTPC

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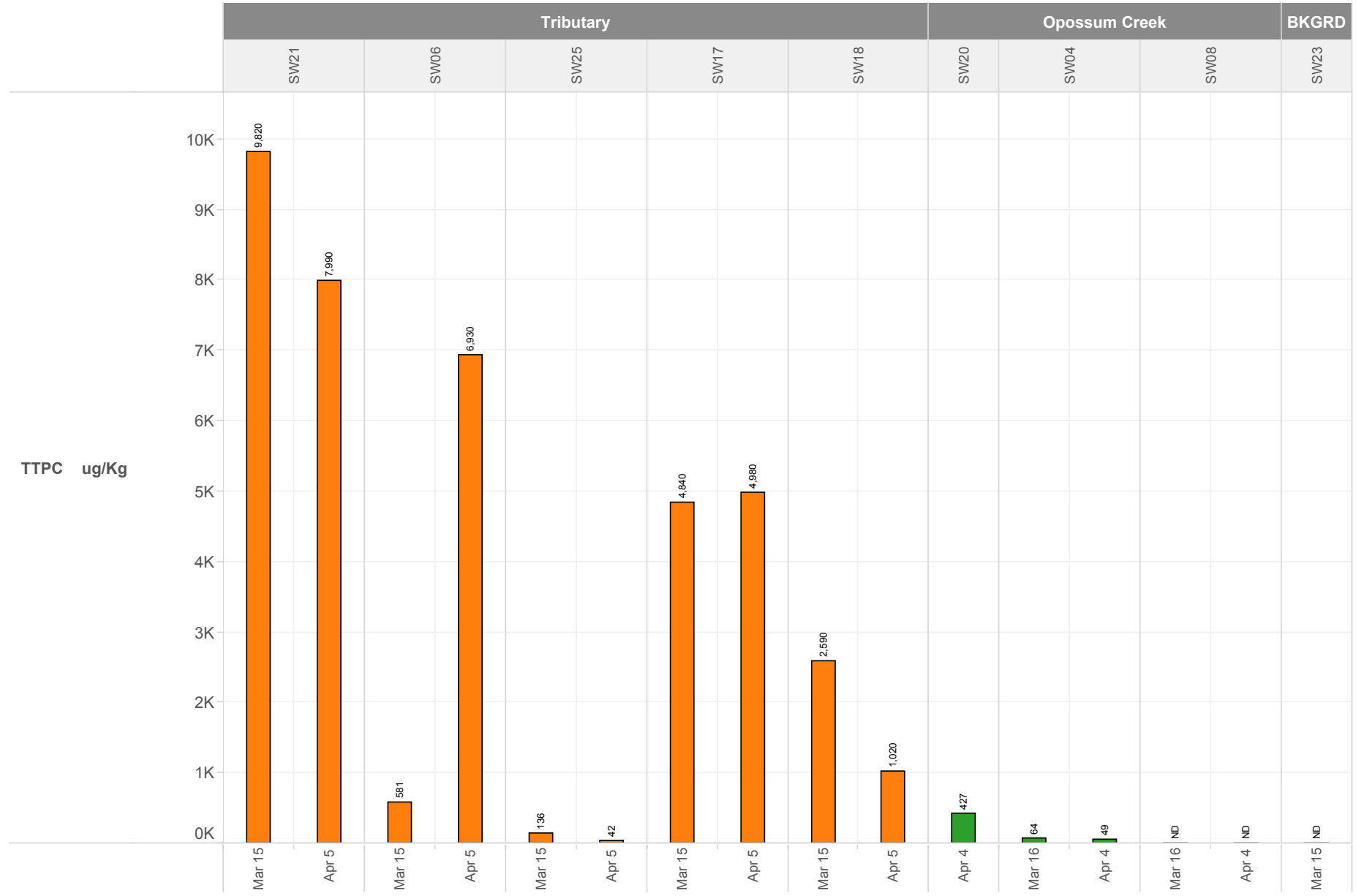
"

Figure 1: Sediment Analytical Summary
March 15, 2015 - April 8, 2015



Results displayed have not undergone complete QA/QC analysis and are presented in a preliminary format.
 After implementation of the sampling adjustment plan on July 19th, 2014, locations SW21 and SW25 were reclassified as "Tributary."
 Note: ND = not detected in sample(s) analyzed; analyte concentration below method detection limit (MDL) established by Pace Laboratories.
 BKGRD = Background

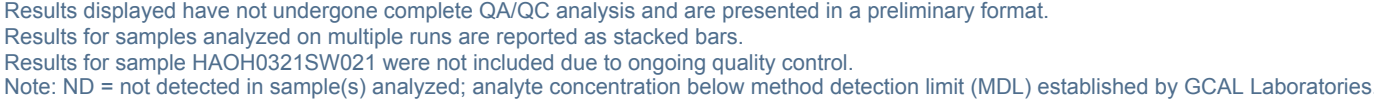
Figure 2: Sediment Summary for TTPC
03/15/2015 - 04/08/2015



Results displayed have not undergone complete QA/QC analysis and are presented in a preliminary format.

After implementation of the sampling adjustment plan on July 19th, 2014, locations SW21 and SW25 were reclassified as "Tributary."

Note: ND = not detected in sample(s) analyzed; analyte concentration below method detection limit (MDL) established by GCAL Laboratories.



APPENDIX A

CTEH Site Activity Logs

Ohio Operations Incident Daily Site Activities - 03/15/2015

ID: 132022

GPS: 39.701, -80.8539

Date: 2015/03/15 08:20

Location Description:

Primary Identifier: HAOH0315TB001

Observation Type: Sample-Pickup

Secondary Identifier:

Observation Subtype: Blank Water

Comments: Pace trip blank



ID: 132023

GPS: 39.70099, -80.8539

Date: 2015/03/15 08:25

Location Description:

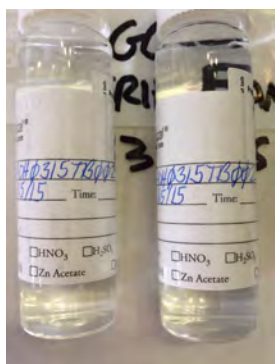
Primary Identifier: HAOH0315TB002

Observation Type: Sample-Pickup

Secondary Identifier: Blank

Observation Subtype: Blank Water

Comments: Gcal trip blank



ID: 132018

GPS: 39.70993, -80.90347

Date: 2015/03/15 10:22

Location Description: [Surface Water/Sediment]

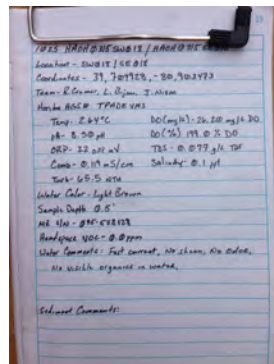
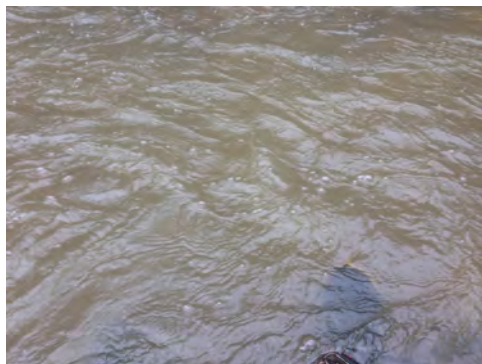
Primary Identifier: HAOH0315SW018

Observation Type: Sample-Pickup

Secondary Identifier: SW18

Observation Subtype: Surface Water

Comments: Fast current, no sheen, no odor, no visible organics in water.



ID: 132014

GPS: 39.70998, -80.90324

Date: 2015/03/15 10:31

Location Description: [Surface Water/Sediment]

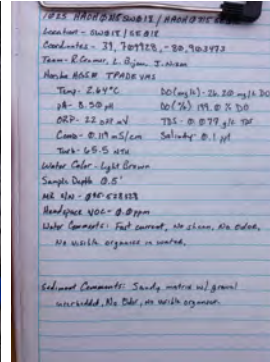
Primary Identifier: HAOH0315SE018

Observation Type: Sample-Pickup

Secondary Identifier: SW18

Observation Subtype: Sediment

Comments: Sandy matrix with gravel interbedded. No odor, no visible organics.



ID: 132017

GPS: 39.7103, -80.90298

Date: 2015/03/15 11:15

Location Description: [Surface Water/Sediment]

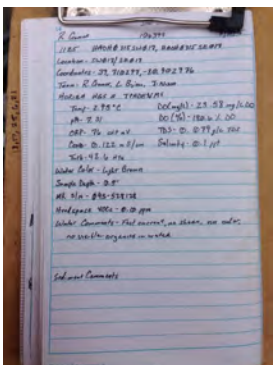
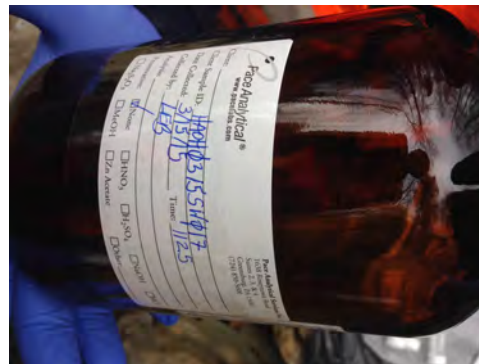
Primary Identifier: HAOH0315SW017

Observation Type: Sample-Pickup

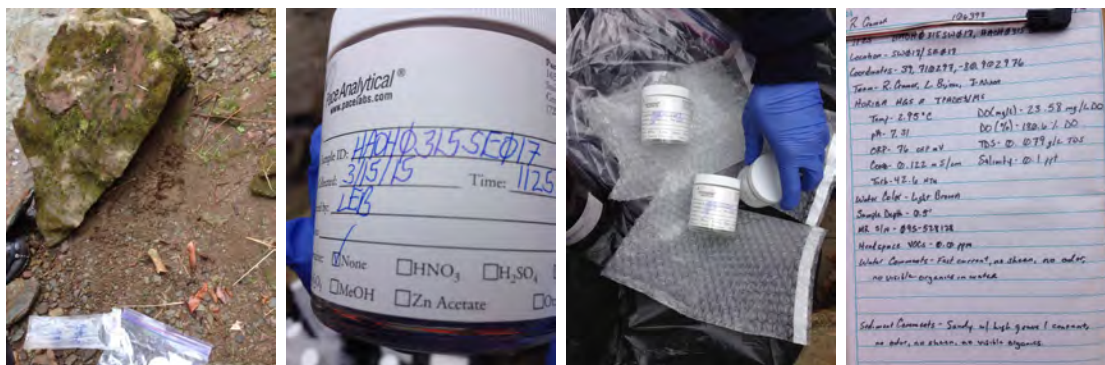
Secondary Identifier: SW17

Observation Subtype: Surface Water

Comments: Fast current, no sheen, no odor, no visible organics in water.



ID: 132019 **GPS:** 39.7029, -80.90659
Date: 2015/03/15 11:22 **Location Description:** [Surface Water/Sediment]
Primary Identifier: HAOH0315SE017 **Observation Type:** Sample-Pickup
Secondary Identifier: SW17 **Observation Subtype:** Sediment
Comments: Sandy matrix with gravel interbedded, no sheen, no odor, no visible organics



ID: 132013 **GPS:** 39.7029, -80.90659
Date: 2015/03/15 11:57 **Location Description:**
Primary Identifier: HAOH0315SW025 **Observation Type:** Sample-Pickup
Secondary Identifier: SW25 **Observation Subtype:** Surface Water
Comments: Slow current, no sheen, no odor, no visible organics in water.



ID: 132020 **GPS:** 39.69671, -80.90514
Date: 2015/03/15 12:06 **Location Description:**
Primary Identifier: HAOH0315SE025 **Observation Type:** Sample-Pickup
Secondary Identifier: SW25 **Observation Subtype:** Sediment
Comments: Sandy with gravel content, no sheen, no odor, no visible organics in water.



GPS: 39.69432, -80.90463

ID: 132012

Date: 2015/03/15 12:34

Primary Identifier: HAOH0315SW006

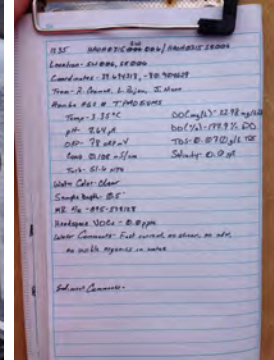
Secondary Identifier: SW06

Location Description: Downstream of creek that confluent with ditch that runs by site. [Surface Water/Sediment]

Observation Type: Sample-Pickup

Observation Subtype: Surface Water

Comments: Fast current, no sheen, no odor, no visible organics in water.



GPS: 39.69442, -80.90429

ID: 132010

Date: 2015/03/15
12:38

Primary Identifier: HAOH0315SE006

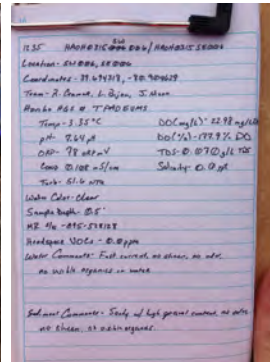
Secondary Identifier: SW06

Location Description: Downstream of creek that confluent with ditch that runs by site. [Surface Water/Sediment]

Observation Type: Sample-Pickup

Observation Subtype: Sediment

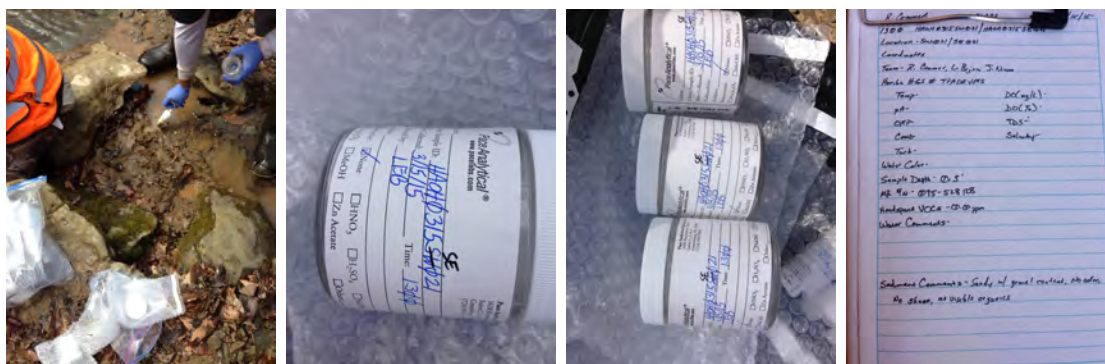
Comments: Sandy with high gravel content, no sheen, no odor, no visible organics in water.



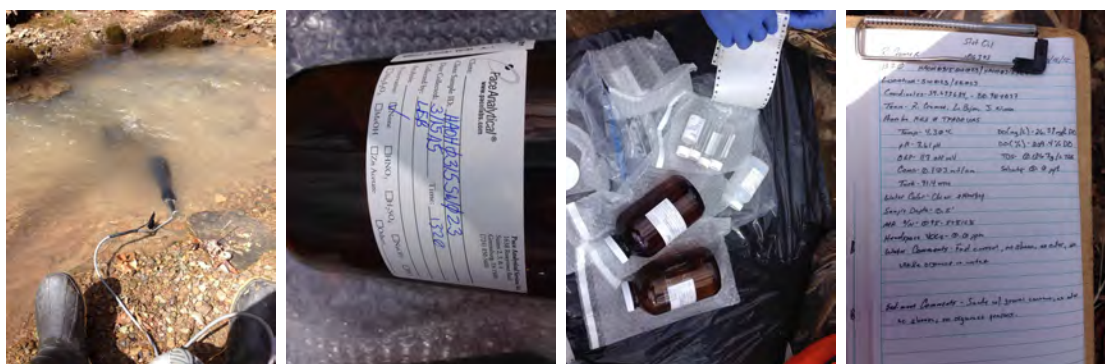
ID: 132015 **GPS:** 39.6943, -80.90364
Date: 2015/03/15 12:53 **Location Description:** [Surface Water/Sediment]
Primary Identifier: HAOH0315SW021 **Observation Type:** Sample-Pickup
Secondary Identifier: SW21 **Observation Subtype:** Surface Water
Comments: Fast current, no sheen, no odor, no visible organics in water.



ID: 132009 **GPS:** 39.69429, -80.90363
Date: 2015/03/15 12:55 **Location Description:** [Surface Water/Sediment]
Primary Identifier: HAOH0315SE021 **Observation Type:** Sample-Pickup
Secondary Identifier: SW21 **Observation Subtype:** Sediment
Comments: Sandy with high gravel content, no sheen, no odor, no visible organics in water.



ID: 132016 **GPS:** 39.69424, -80.90408
Date: 2015/03/15 13:00 **Location Description:**
Primary Identifier: HAOH0315SW023 **Observation Type:** Sample-Pickup
Secondary Identifier: SW23 **Observation Subtype:** Surface Water
Comments: Fast current, no sheen, no odor, no visible organics in water.



ID: 132021

GPS: 39.69368, -80.90404

Date: 2015/03/15 13:01 **Location Description:**

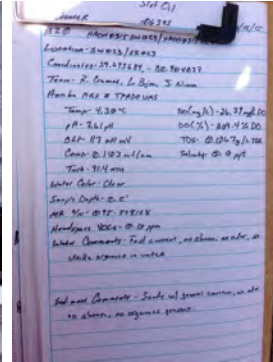
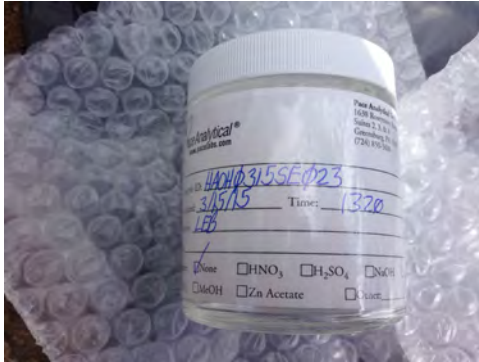
Primary Identifier: HAOH0315SE023

Observation Type: Sample-Pickup

Secondary Identifier: SW23

Observation Subtype: Sediment

Comments: Sandy with high gravel content, no sheen, no odor, no visible organics in water.



ID: 132285

GPS:

Date: 2015/03/15 18:21 **Location Description:** COCs

Primary Identifier: COCs

Observation Type: Chain Of Custody

Secondary Identifier: Pace

Observation Subtype: COC

Comments: Pace COCs for samples taken

Ohio Operations Incident Daily Site Activities - 03/16/2015

ID: 132111

GPS: 39.71134, -80.88804

Date: 2015/03/16
08:35

Location Description: End of hwy 404 on Opossum Creek. [Surface Water/Sediment]

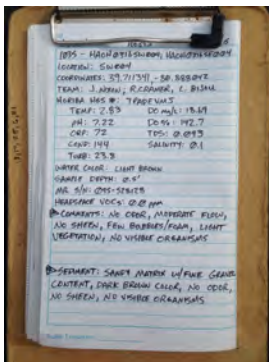
Primary Identifier: HAOH0316SE004

Observation Type: Sample-Pickup

Secondary Identifier: SW04

Observation Subtype: Sediment

Comments: Sandy matrix with fine gravel content, dark brown color, no odor, no sheen, no visible organisms



ID: 132050

GPS: 39.70092, -80.8539

Date: 2015/03/16 08:45

Location Description:

Primary Identifier: HAOH0316TB001

Observation Type: Sample-Pickup

Secondary Identifier: Blank

Observation Subtype: Blank Water

Comments: Pace trip blank.



GPS: 39.70092, -80.8539

Date: 2015/03/16 08:47 **Location Description:**

Primary Identifier: HAOH0316TB002

Observation Type: Sample-Pickup

Secondary Identifier: Blank

Observation Subtype: Blank Water

Comments: Gcal trip blank



ID: 132112

GPS: 39.73852, -80.85228

Date: 2015/03/16 09:40

Location Description: Confluence of opossum creek and Ohio river. [Surface Water/Sediment]

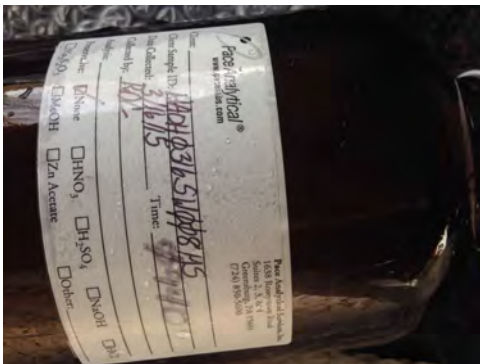
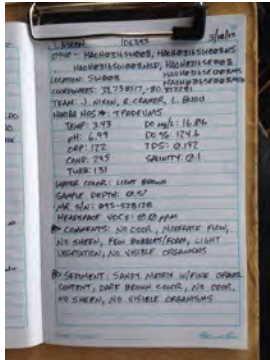
Primary Identifier: HAOH0316SW008MS

Observation Type: Sample-Pickup

Secondary Identifier: SW08

Observation Subtype: Surface Water

Comments: HORIBA HGS: TPADEVMS; MR S/N: 095-528128; No odor, moderate flow, no sheen, few bubbles/foam, light vegetation, no visible organisms



ID: 132105

Date: 2015/03/16 09:40

Primary Identifier: HAOH0316SW008MSD

Secondary Identifier: SW08

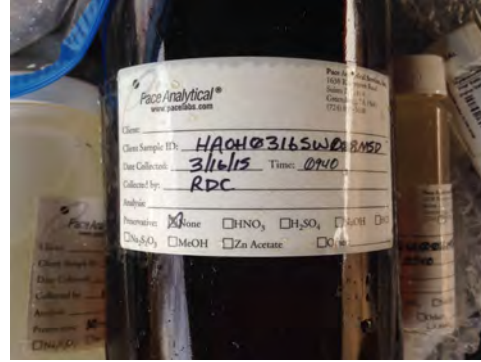
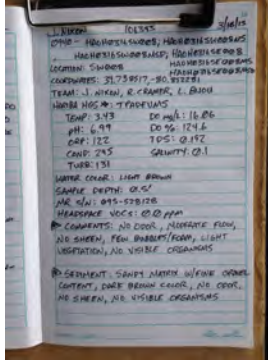
GPS: 39.73852, -80.85228

Location Description: Confluence of opossum creek and Ohio river. [Surface Water/Sediment]

Observation Type: Sample-Pickup

Observation Subtype: Surface Water

Comments: HORIBA HGS: TPADEVMS; MR S/N: 095-528128; No odor, moderate flow, no sheen, few bubbles/foam, light vegetation, no visible organisms



ID: 132106

Date: 2015/03/16 09:40

Primary Identifier: HAOH0316SE008MS

Secondary Identifier: SW08

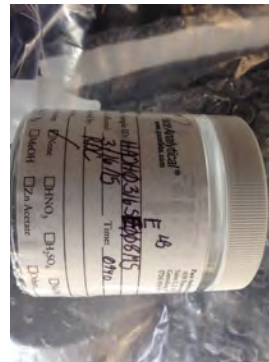
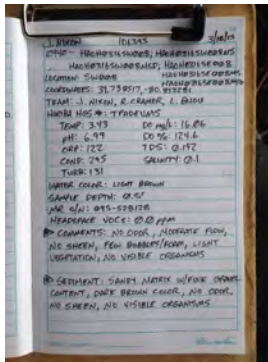
GPS: 39.73852, -80.85228

Location Description: Confluence of opossum creek and Ohio river. [Surface Water/Sediment]

Observation Type: Sample-Pickup

Observation Subtype: Sediment

Comments: Sandy matrix with fine gravel content, dark brown color, no odor, no sheen, no visible organisms



ID: 132107

GPS: 39.73852, -80.85228

Date: 2015/03/16
09:40

Location Description: Confluence of opossum creek and Ohio river.
[Surface Water/Sediment]

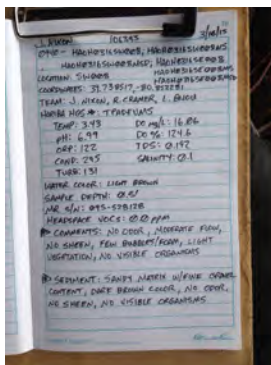
Primary Identifier: HAOH0316SE008

Observation Type: Sample-Pickup

Secondary Identifier: SW08

Observation Subtype: Sediment

Comments: Sandy matrix with fine gravel content, dark brown color, no odor, no sheen, no visible organisms



ID: 132108

GPS: 39.73852, -80.85228

Date: 2015/03/16 09:40

Location Description: Confluence of opossum creek and Ohio river.
[Surface Water/Sediment]

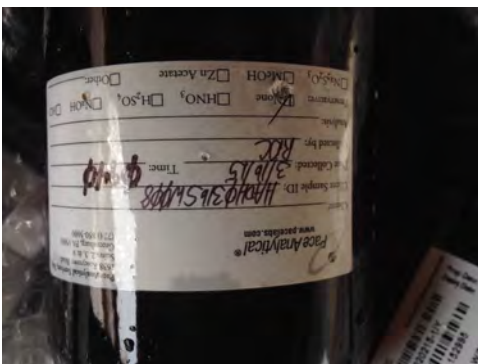
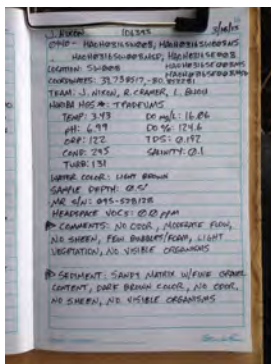
Primary Identifier: HAOH0316SW008

Observation Type: Sample-Pickup

Secondary Identifier: SW08

Observation Subtype: Surface Water

Comments: HORIBA HGS: TPADEVMS; MR S/N: 095-528128; No odor, moderate flow, no sheen, few bubbles/foam, light vegetation, no visible organisms



ID: 132110

GPS: 39.73852, -80.85228

Date: 2015/03/16 09:40

Location Description: Confluence of opossum creek and Ohio river. [Surface Water/Sediment]

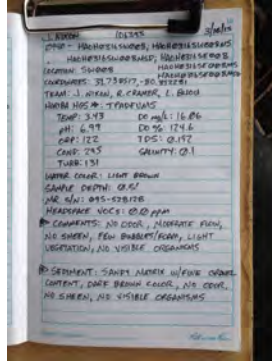
Primary Identifier: HAOH0316SE008MSD

Observation Type: Sample-Pickup

Secondary Identifier: SW08

Observation Subtype: Sediment

Comments: Sandy matrix with fine gravel content, dark brown color, no odor, no sheen, no visible organisms



ID: 132109

GPS: 39.71134, -80.88804

Date: 2015/03/16 10:35

Location Description: End of hwy 404 on Opossum Creek. [Surface Water/Sediment]

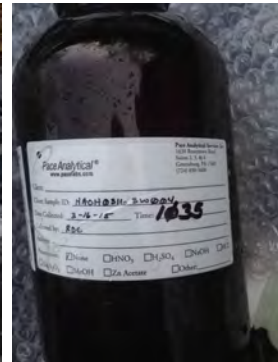
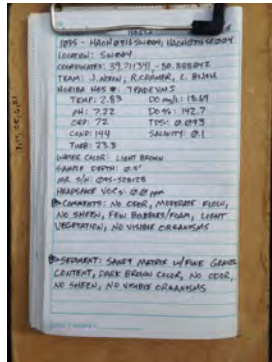
Primary Identifier: HAOH0316SW004

Observation Type: Sample-Pickup

Secondary Identifier: SW04

Observation Subtype: Surface Water

Comments: HORIBA HGS: TPADEVMS; MR S/N: 095-528128; No odor, moderate flow, no sheen, few bubbles/foam, light vegetation, no visible organisms



ID: 132284

GPS:

Date: 2015/03/16 14:44

Location Description: COCs

Primary Identifier: COCs

Observation Type: Chain Of Custody

Secondary Identifier: Pace & GCAL

Observation Subtype: COC

Comments: Pace and GCAL COCs for samples taken

Ohio Operations Incident Daily Site Activities - 03/17/2015

ID: 132290	GPS: 39.6987, -80.89881
Date: 2015/03/17 09:15	Location Description: Sump 13
Primary Identifier: HAOH0317SW027	Observation Type: Sample-Pickup
Secondary Identifier: SW27	Observation Subtype: Surface Water
Comments: Colorless; No sheen; No odor; No visible organic matter; No wildlife present cloudy, breezy, mid 40s	
ID: 132292	GPS: 39.6986, -80.90026
Date: 2015/03/17 09:35	Location Description: Pad Sample - [Outfall Location]
Primary Identifier: HAOH0317PD007	Observation Type: Sample-Pickup
Secondary Identifier: PD07	Observation Subtype: Surface Water
Comments: Colorless; No sheen; No odor; No visible organic matter; No wildlife present cloudy, breezy, mid 40s	
ID: 132293	GPS: 39.69814, -80.90112
Date: 2015/03/17 09:55	Location Description: [Surface Water/Sediment]
Primary Identifier: HAOH0317SW024	Observation Type: Sample-Pickup
Secondary Identifier: SW24	Observation Subtype: Surface Water
Comments: Colorless; No sheen; No odor; No visible organic matter; No wildlife present cloudy, breezy, mid 40s	
ID: 132291	GPS: 39.69632, -80.89896
Date: 2015/03/17 10:10	Location Description: Pad Sample - 200 yards SW downhill from pad. [Outfall Location]
Primary Identifier: HAOH0317PD003	Observation Type: Sample-Pickup
Secondary Identifier: PD03	Observation Subtype: Surface Water
Comments: Colorless; No sheen; No odor; No visible organic matter; No wildlife present; Took sample from spicket on PVC pipe cloudy, breezy, mid 40s	
ID: 132287	GPS:
Date: 2015/03/17 12:57	Location Description: COCs
Primary Identifier: COCs	Observation Type: Chain Of Custody
Secondary Identifier: Pace & GCAL	Observation Subtype: COC
Comments: Pace and GCAL COCs for samples taken	
ID: 141942	GPS:
Date: 2015/03/17 14:24	Location Description:
Primary Identifier: HAOH0317TB001	Observation Type: Sample-Pickup
Secondary Identifier:	Observation Subtype: Trip Blank
Comments:	

Ohio Operations Incident Daily Site Activities - 03/18/2015

ID: 132225

GPS: 40.07387, -80.8655

Date: 2015/03/18 08:18

Location Description:

Primary Identifier: HAOH0318TB001

Observation Type: Sample-Pickup

Secondary Identifier:

Observation Subtype: Surface Water

Comments: Pace trip blank



ID: 132240

GPS: 39.70098, -80.85391

Date: 2015/03/18 10:55

Location Description: [Surface Water/Sediment]

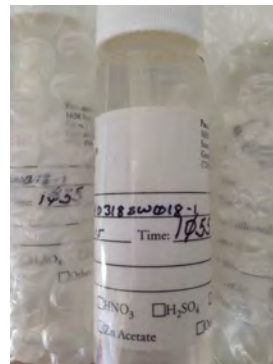
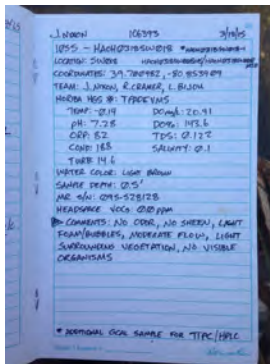
Primary Identifier: HAOH0318SW018-1

Observation Type: Sample-Pickup

Secondary Identifier: SW18

Observation Subtype: Surface Water

Comments: HORIBA HGS #: TPADEVMS; MR S/N: 095-528128; No odor; no sheen; light foam/bubbles; moderate flow; light surrounding vegetation; no visible organisms



ID: 132242

GPS: 39.70098, -80.85391

Date: 2015/03/18 10:55

Location Description: [Surface Water/Sediment]

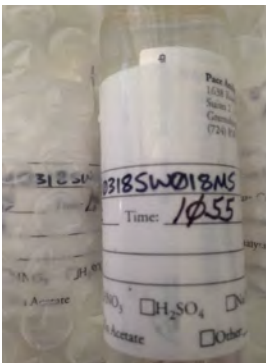
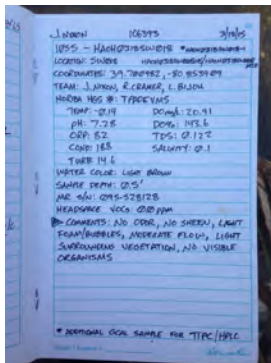
Primary Identifier: HAOH0318SW018MS

Observation Type: Sample-Pickup

Secondary Identifier: SW18

Observation Subtype: Surface Water

Comments: HORIBA HGS #: TPADEVMS; MR S/N: 095-528128; No odor; no sheen; light foam/bubbles; moderate flow; light surrounding vegetation; no visible organisms



ID: 132244

GPS: 39.70098, -80.85391

Date: 2015/03/18 10:55

Location Description: [Surface Water/Sediment]

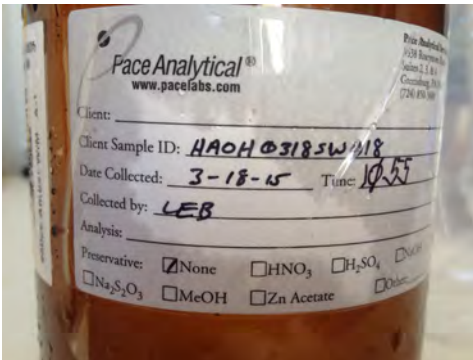
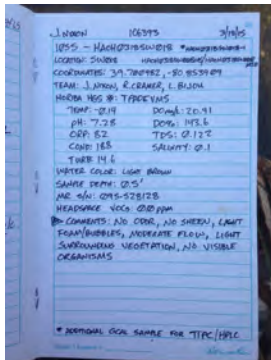
Primary Identifier: HAOH0318SW018

Observation Type: Sample-Pickup

Secondary Identifier: SW18

Observation Subtype: Surface Water

Comments: HORIBA HGS #: TPADEVMS; MR S/N: 095-528128; No odor; no sheen; light foam/bubbles; moderate flow; light surrounding vegetation; no visible organisms



ID: 132245

GPS: 39.70098, -80.85391

Date: 2015/03/18 10:55

Location Description: [Surface Water/Sediment]

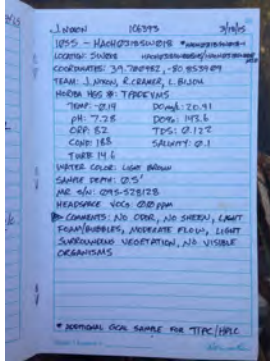
Primary Identifier: HAOH0318SW018MSD

Observation Type: Sample-Pickup

Secondary Identifier: SW18

Observation Subtype: Surface Water

Comments: HORIBA HGS #: TPADEVMS; MR S/N: 095-528128; No odor; no sheen; light foam/bubbles; moderate flow; light surrounding vegetation; no visible organisms



ID: 132239

GPS: 39.70275, -80.90717

Date: 2015/03/18 11:45

Location Description: [Surface Water/Sediment]

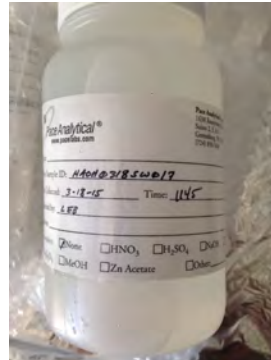
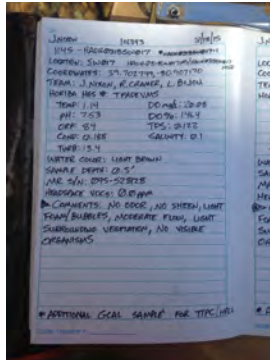
Primary Identifier: HAOH0318SW017

Observation Type: Sample-Pickup

Secondary Identifier: SW17

Observation Subtype: Surface Water

Comments: HORIBA HGS #: TPADEVMS; MR S/N: 095-528128; No odor; no sheen; light foam/bubbles; moderate flow; light surrounding vegetation; no visible organisms



ID: 132249

GPS: 39.70275, -80.90717

Date: 2015/03/18 11:45

Location Description: [Surface Water/Sediment]

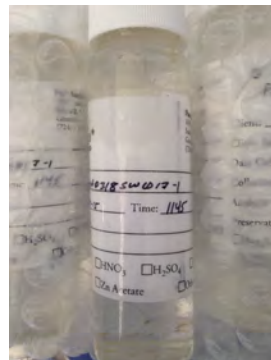
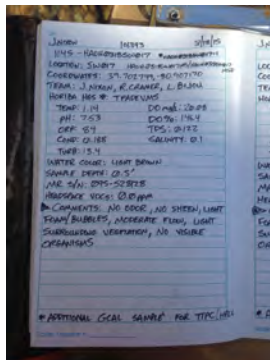
Primary Identifier: HAOH0318SW017-1

Observation Type: Sample-Pickup

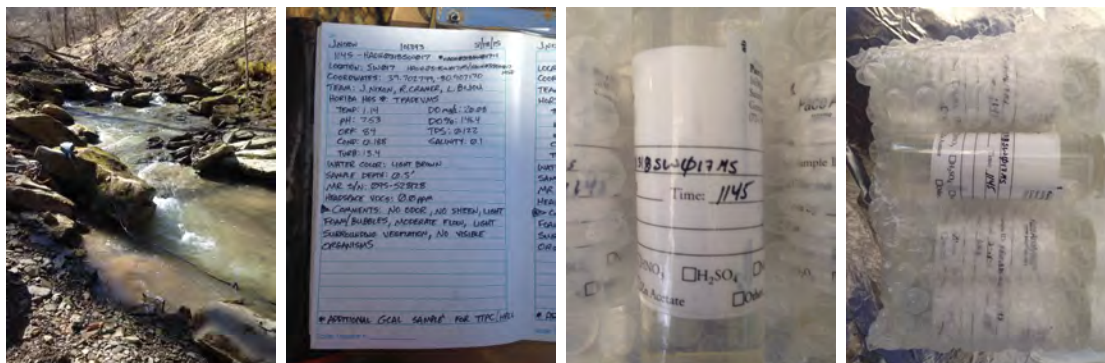
Secondary Identifier: SW17

Observation Subtype: Surface Water

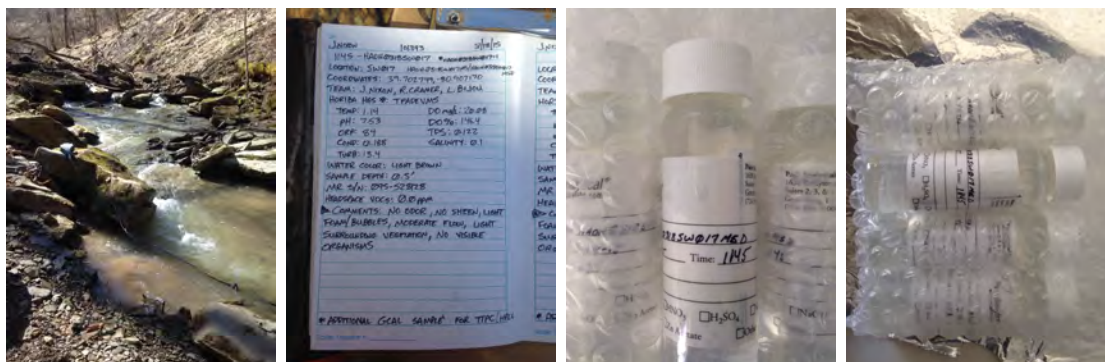
Comments: HORIBA HGS #: TPADEVMS; MR S/N: 095-528128; No odor; no sheen; light foam/bubbles; moderate flow; light surrounding vegetation; no visible organisms



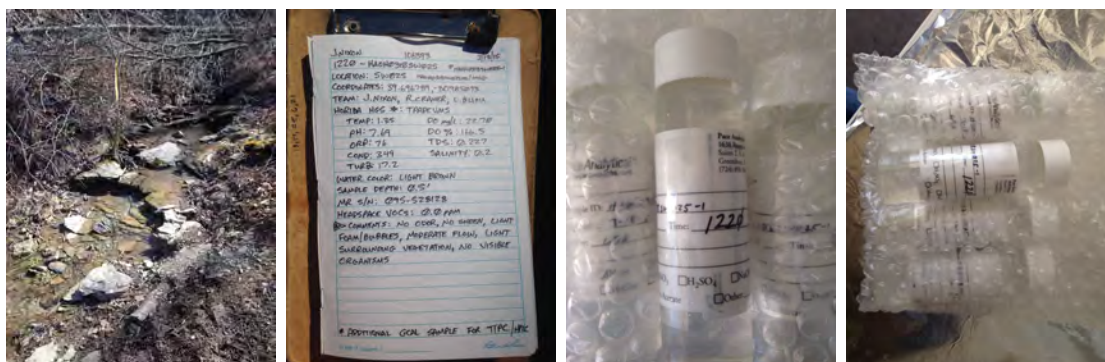
ID: 132250 **GPS:** 39.70275, -80.90717
Date: 2015/03/18 11:45 **Location Description:** [Surface Water/Sediment]
Primary Identifier: HAOH0318SW017MS **Observation Type:** Sample-Pickup
Secondary Identifier: SW17 **Observation Subtype:** Surface Water
Comments: HORIBA HGS #: TPADEVMS; MR S/N: 095-528128; No odor; no sheen; light foam/bubbles; moderate flow; light surrounding vegetation; no visible organisms



ID: 132252 **GPS:** 39.70275, -80.90717
Date: 2015/03/18 11:45 **Location Description:** [Surface Water/Sediment]
Primary Identifier: HAOH0318SW017MSD **Observation Type:** Sample-Pickup
Secondary Identifier: SW17 **Observation Subtype:** Surface Water
Comments: HORIBA HGS #: TPADEVMS; MR S/N: 095-528128; No odor; no sheen; light foam/bubbles; moderate flow; light surrounding vegetation; no visible organisms



ID: 132235 **GPS:** 39.69679, -80.90509
Date: 2015/03/18 12:20 **Location Description:** Unnamed creek
Primary Identifier: HAOH0318SW025-1 **Observation Type:** Sample-Pickup
Secondary Identifier: SW25 **Observation Subtype:** Surface Water
Comments: HORIBA HGS #: TPADEVMS; MR S/N: 095-528128; No odor; no sheen; light foam/bubbles; moderate flow; light surrounding vegetation; no visible organisms



ID: 132241

GPS: 39.69679, -80.90509

Date: 2015/03/18 12:20

Location Description: Unnamed creek

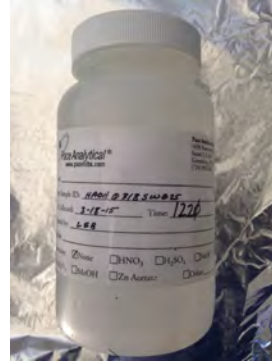
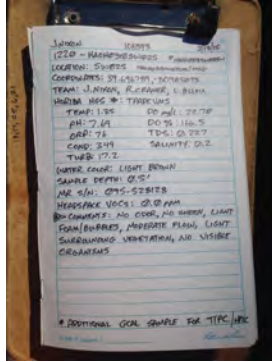
Primary Identifier: HAOH0318SW025

Observation Type: Sample-Pickup

Secondary Identifier: SW25

Observation Subtype: Surface Water

Comments: HORIBA HGS #: TPADEVMS; MR S/N: 095-528128; No odor; no sheen; light foam/bubbles; moderate flow; light surrounding vegetation; no visible organisms



ID: 132246

GPS: 39.69679, -80.90509

Date: 2015/03/18 12:20

Location Description: Unnamed creek

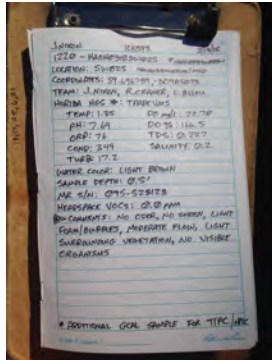
Primary Identifier: HAOH0318SW025MSD

Observation Type: Sample-Pickup

Secondary Identifier: SW25

Observation Subtype: Surface Water

Comments: HORIBA HGS #: TPADEVMS; MR S/N: 095-528128; No odor; no sheen; light foam/bubbles; moderate flow; light surrounding vegetation; no visible organisms



ID: 132251

GPS: 39.69679, -80.90509

Date: 2015/03/18 12:20

Location Description: Unnamed creek

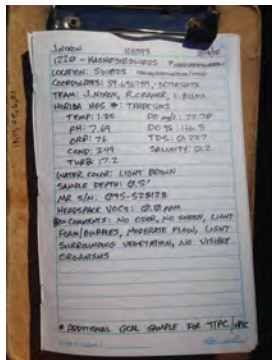
Primary Identifier: HAOH0318SW025MS

Observation Type: Sample-Pickup

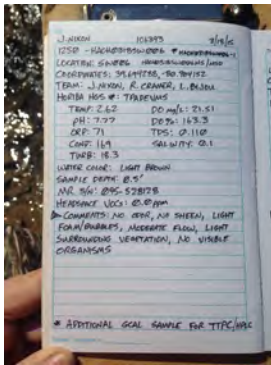
Secondary Identifier: SW25

Observation Subtype: Surface Water

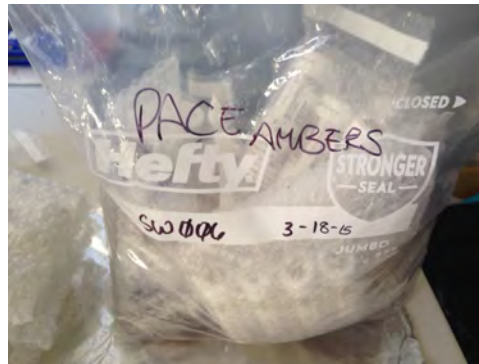
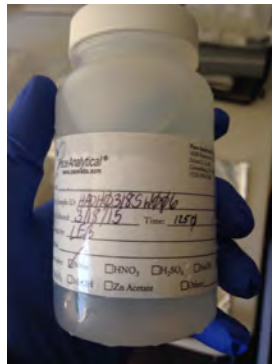
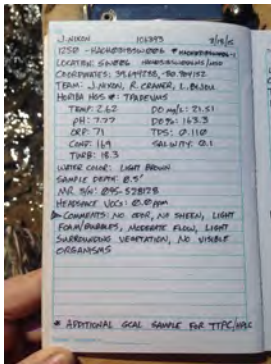
Comments: HORIBA HGS #: TPADEVMS; MR S/N: 095-528128; No odor; no sheen; light foam/bubbles; moderate flow; light surrounding vegetation; no visible organisms



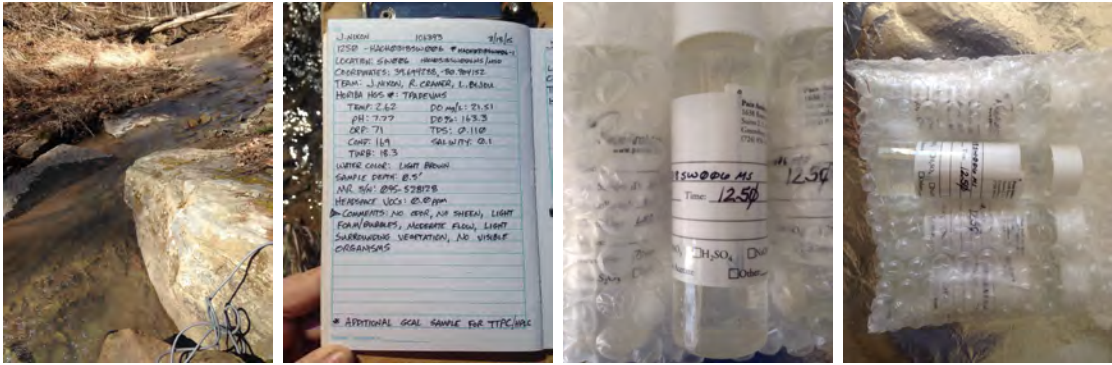
ID: 132236
Date: 2015/03/18 12:50
Primary Identifier: HAOH0318SW006-1
Secondary Identifier: SW06
GPS: 39.69429, -80.90415
Location Description: Downstream of creek that confluent with ditch that runs by site. [Surface Water/Sediment]
Observation Type: Sample-Pickup
Observation Subtype: Surface Water
Comments: HORIBA HGS #: TPADEVMS; MR S/N: 095-528128; No odor; no sheen; light foam/bubbles; moderate flow; light surrounding vegetation; no visible organisms



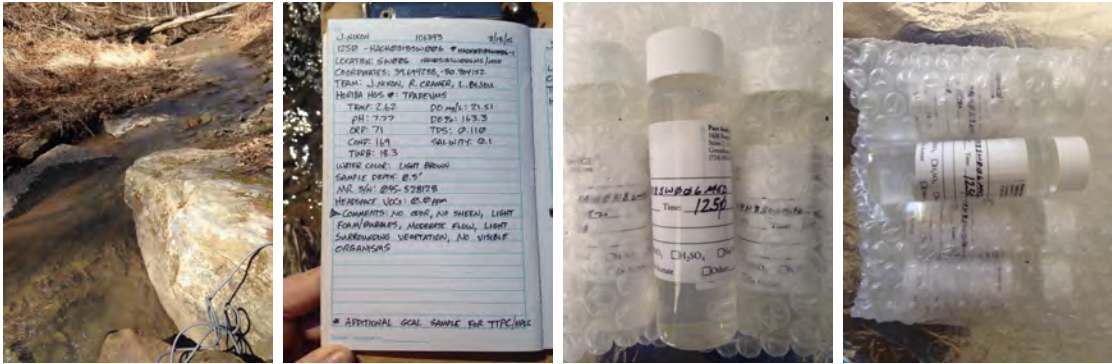
ID: 132238
Date: 2015/03/18 12:50
Primary Identifier: HAOH0318SW006
Secondary Identifier: SW06
GPS: 39.69429, -80.90415
Location Description: Downstream of creek that confluent with ditch that runs by site. [Surface Water/Sediment]
Observation Type: Sample-Pickup
Observation Subtype: Surface Water
Comments: HORIBA HGS #: TPADEVMS; MR S/N: 095-528128; No odor; no sheen; light foam/bubbles; moderate flow; light surrounding vegetation; no visible organisms



ID: 132248
Date: 2015/03/18 12:50
Primary Identifier: HAOH0318SW006MS
Secondary Identifier: SW06
GPS: 39.69429, -80.90415
Location Description: Downstream of creek that confluences with ditch that runs by site. [Surface Water/Sediment]
Observation Type: Sample-Pickup
Observation Subtype: Surface Water
Comments: HORIBA HGS #: TPADEVMS; MR S/N: 095-528128; No odor; no sheen; light foam/bubbles; moderate flow; light surrounding vegetation; no visible organisms



ID: 132253
Date: 2015/03/18 12:50
Primary Identifier: HAOH0318SW006MSD
Secondary Identifier: SW06
GPS: 39.69429, -80.90415
Location Description: Downstream of creek that confluences with ditch that runs by site. [Surface Water/Sediment]
Observation Type: Sample-Pickup
Observation Subtype: Surface Water
Comments: HORIBA HGS #: TPADEVMS; MR S/N: 095-528128; No odor; no sheen; light foam/bubbles; moderate flow; light surrounding vegetation; no visible organisms



ID: 132234

GPS: 39.69437, -80.90388

Date: 2015/03/18 13:15

Location Description: [Surface Water/Sediment]

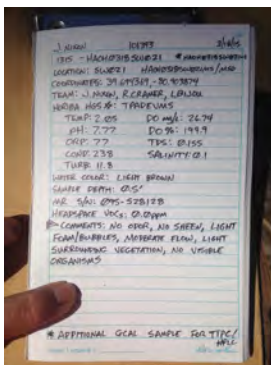
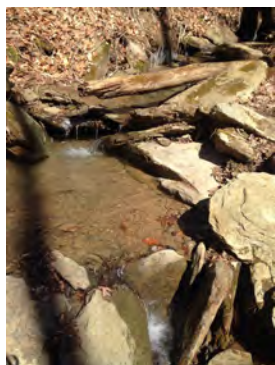
Primary Identifier: HAOH0318SW021-1

Observation Type: Sample-Pickup

Secondary Identifier: SW21

Observation Subtype: Surface Water

Comments: HORIBA HGS #: TPADEVMS; MR S/N: 095-528128; No odor; no sheen; light foam/bubbles; moderate flow; light surrounding vegetation; no visible organisms



ID: 132237

GPS: 39.69437, -80.90388

Date: 2015/03/18 13:15

Location Description: [Surface Water/Sediment]

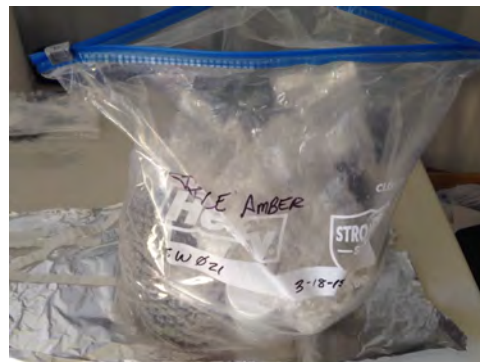
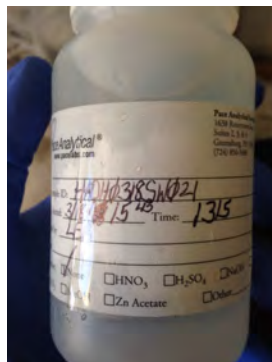
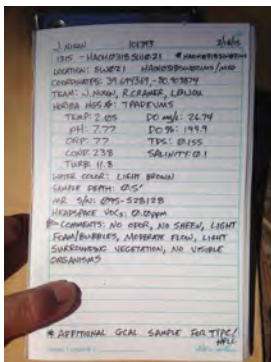
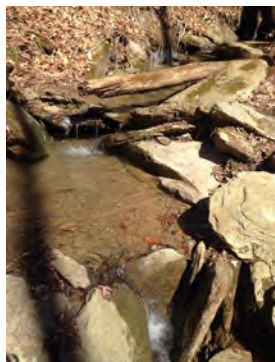
Primary Identifier: HAOH0318SW021

Observation Type: Sample-Pickup

Secondary Identifier: SW21

Observation Subtype: Surface Water

Comments: HORIBA HGS #: TPADEVMS; MR S/N: 095-528128; No odor; no sheen; light foam/bubbles; moderate flow; light surrounding vegetation; no visible organisms



ID: 132243

GPS: 39.69437, -80.90388

Date: 2015/03/18 13:15

Location Description: [Surface Water/Sediment]

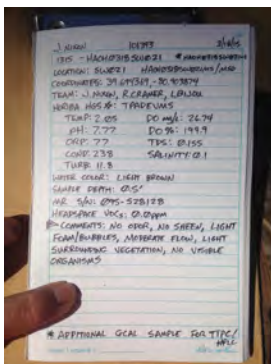
Primary Identifier: HAOH0318SW021MS

Observation Type: Sample-Pickup

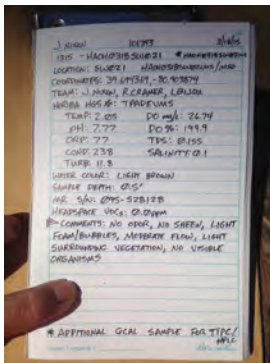
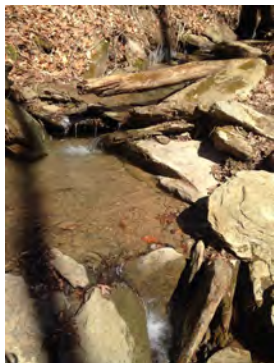
Secondary Identifier: SW21

Observation Subtype: Surface Water

Comments: HORIBA HGS #: TPADEVMS; MR S/N: 095-528128; No odor; no sheen; light foam/bubbles; moderate flow; light surrounding vegetation; no visible organisms



ID: 132247 **GPS:** 39.69437, -80.90388
Date: 2015/03/18 13:15 **Location Description:** [Surface Water/Sediment]
Primary Identifier: HAOH0318SW021MSD **Observation Type:** Sample-Pickup
Secondary Identifier: SW21 **Observation Subtype:** Surface Water
Comments: HORIBA HGS #: TPADEVMS; MR S/N: 095-528128; No odor; no sheen; light foam/bubbles; moderate flow; light surrounding vegetation; no visible organisms



ID: 141941 **GPS:**
Date: 2015/03/18 14:21 **Location Description:**
Primary Identifier: HAOH0318TB002 **Observation Type:** Sample-Pickup
Secondary Identifier: **Observation Subtype:** Trip Blank
Comments:

ID: 132283 **GPS:**
Date: 2015/03/18 16:03 **Location Description:** COCs
Primary Identifier: COCs **Observation Type:** Chain Of Custody
Secondary Identifier: Pace & GCAL **Observation Subtype:** COC
Comments: Pace and GCAL COCs for samples taken

ID: 132265 **GPS:** 39.67998, -80.8564
Date: 2015/03/18 22:44 **Location Description:**
Primary Identifier: HAOH0319TB002 **Observation Type:** Sample-Pickup
Secondary Identifier: Blank **Observation Subtype:** Blank Water
Comments: Gcal



Ohio Operations Incident Daily Site Activities - 03/19/2015

ID: 132262

GPS: 39.701, -80.8539

Date: 2015/03/19 09:58

Location Description:

Primary Identifier: HAOH0319TB001

Observation Type: Sample-Pickup

Secondary Identifier: Blank

Observation Subtype: Blank Water

Comments: Pace



ID: 132260

GPS: 39.73848, -80.85233

Date: 2015/03/19 10:54

Location Description: Confluence of opossum creek and Ohio river.
[Surface Water/Sediment]

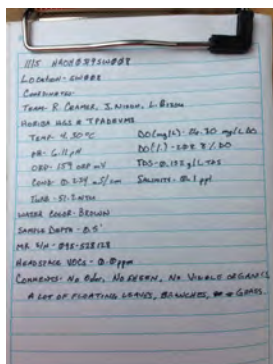
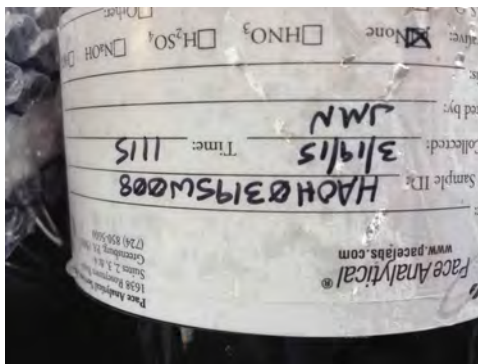
Primary Identifier: HAOH0319SW008

Observation Type: Sample-Pickup

Secondary Identifier: SW08

Observation Subtype: Surface Water

Comments: Horiba HGS #TPADEVMS M/R #095-528128 No odor, no sheen, no visible organics on water, a lot of floating leaves, branches and grass



ID: 132261

GPS: 39.71108, -80.88783

Date: 2015/03/19 10:57

Location Description: End of hwy 404 on Opossum Creek. [Surface Water/Sediment]

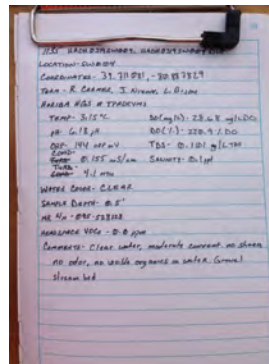
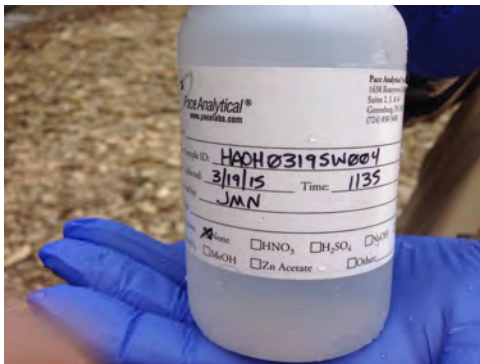
Primary Identifier: HAOH0319SW004

Observation Type: Sample-Pickup

Secondary Identifier: SW04

Observation Subtype: Surface Water

Comments: Horiba HGS #TPADEVMS M/R #095-528128 No odor, no sheen, no visible organics on water, moderate flow velocity, gravel steam bed



ID: 132264

GPS: 39.71107, -80.88786

Date: 2015/03/19 10:57

Location Description: End of hwy 404 on Opossum Creek. [Surface Water/Sediment]

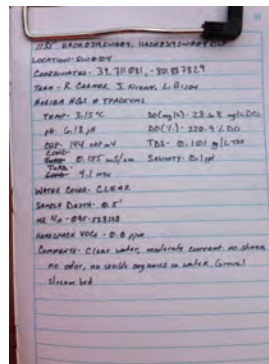
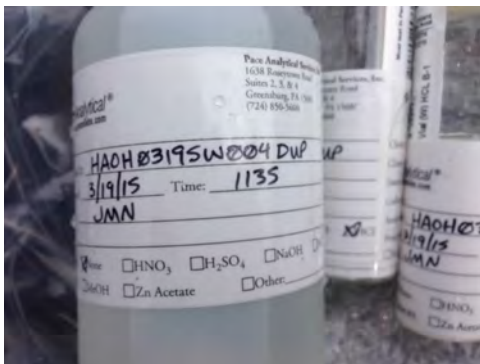
Primary Identifier: HAOH0319SW004DUP

Observation Type: Sample-Pickup

Secondary Identifier: SW04

Observation Subtype: Surface Water

Comments: Horiba HGS #TPADEVMS M/R #095-528128 No odor, no sheen, no visible organics on water, moderate flow velocity, gravel steam bed



ID: 132263

GPS: 39.71422, -80.89725

Date: 2015/03/19 10:58

Location Description: [Surface Water/Sediment]

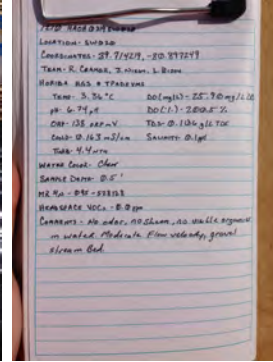
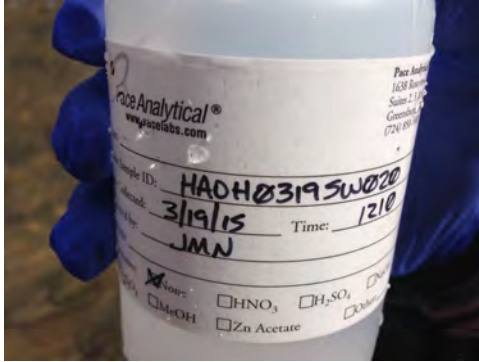
Primary Identifier: HAOH0319SW020

Observation Type: Sample-Pickup

Secondary Identifier: SW20

Observation Subtype: Surface Water

Comments: Horiba HGS #TPADEVMS M/R #095-528128 No odor, no sheen, no visible organics on water, moderate flow velocity, gravel steam bed



Ohio Operations Incident Daily Site Activities - 03/20/2015

ID: 132296

GPS: 39.70098, -80.85384

Date: 2015/03/20 08:14

Location Description:

Primary Identifier: HAOH0320TB001

Observation Type: Sample-Pickup

Secondary Identifier: Blank

Observation Subtype: Blank Water

Comments: Pace trip blank



ID: 132332

GPS: 39.69868, -80.89884

Date: 2015/03/20 09:15

Location Description: Sump 13

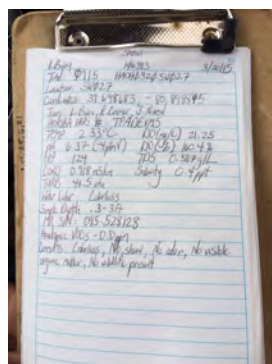
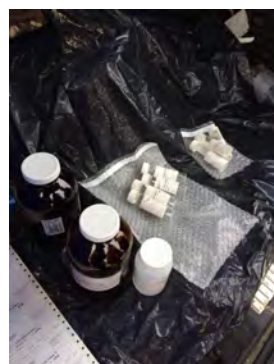
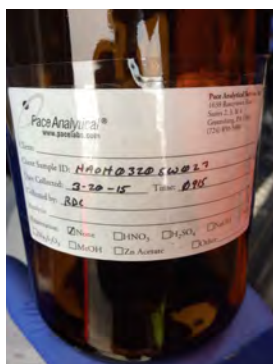
Primary Identifier: HAOH0320SW027

Observation Type: Sample-Pickup

Secondary Identifier: SW27

Observation Subtype: Surface Water

Comments: Colorless; No sheen; No odor; No visible organic matter; No wildlife present cloudy, rainy, low 40s



ID: 132331

GPS: 39.69856, -80.90026

Date: 2015/03/20 09:30

Location Description: Pad Sample - [Outfall Location]

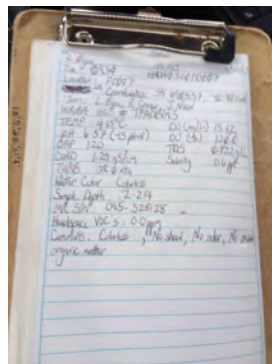
Primary Identifier: HAOH0320PD007

Observation Type: Sample-Pickup

Secondary Identifier: PD07

Observation Subtype: Surface Water

Comments: Colorless; No sheen; No odor; No visible organic matter; No wildlife present cloudy, rainy, low 40s



ID: 132330

GPS: 39.69807, -80.9011

Date: 2015/03/20 09:45

Location Description: [Surface Water/Sediment]

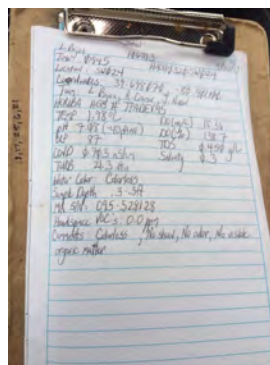
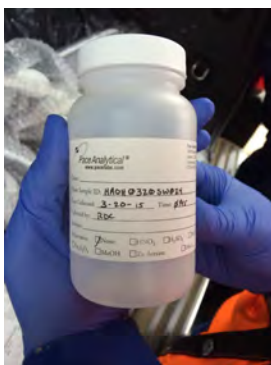
Primary Identifier: HAOH0320SW024

Observation Type: Sample-Pickup

Secondary Identifier: SW24

Observation Subtype: Surface Water

Comments: Colorless; No sheen; No odor; No visible organic matter; No wildlife present cloudy, rainy, low 40s



ID: 132333

GPS: 39.69635, -80.89901

Date: 2015/03/20
10:00

Location Description: Pad Sample - 200 yards SW downhill from pad. [Outfall Location]

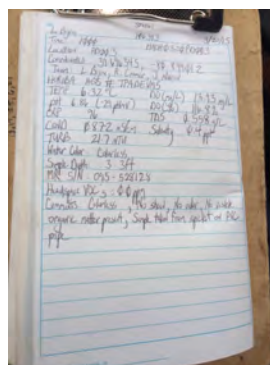
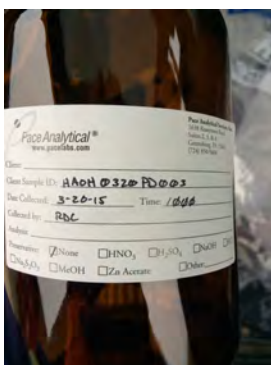
Primary Identifier: HAOH0320PD003

Observation Type: Sample-Pickup

Secondary Identifier: PD03

Observation Subtype: Surface Water

Comments: Colorless; No sheen; No odor; No visible organic matter; No wildlife present cloudy, rainy, low 40s



ID: 132344

GPS:

Date: 2015/03/20 11:27

Location Description: COCs

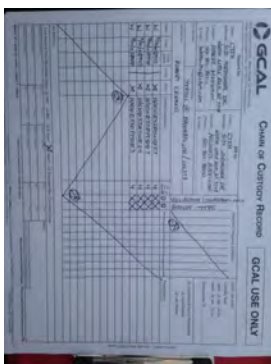
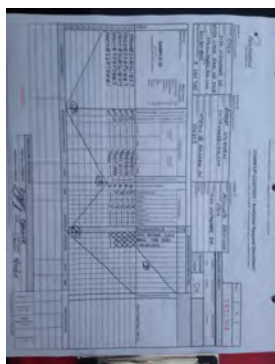
Primary Identifier: COCs

Observation Type: Chain Of Custody

Secondary Identifier: Pace & GCAL

Observation Subtype: COC

Comments: COCs for samples taken



GPS: 39.69459, -80.90434

ID: 133175

Date: 2015/03/20 15:59

Primary Identifier: HAOH0321SW006

Secondary Identifier: SW06

Location Description: Downstream of creek that confluences with ditch that runs by site. [Surface Water/Sediment]

Observation Type: Sample-Pickup

Observation Subtype: Surface Water

Comments: Light foam/bubbles; Moderate flow; No odor, No sheen, No visible organisms; No wildlife present



Ohio Operations Incident Daily Site Activities - 03/21/2015

ID: 132351

GPS: 39.70108, -80.85391

Date: 2015/03/21 08:04

Location Description:

Primary Identifier: HAOH0321TB001

Observation Type: Sample-Pickup

Secondary Identifier: Blank

Observation Subtype: Blank Water

Comments: Pace trip blank



ID: 133171

GPS: 39.7101, -80.9034

Date: 2015/03/21 09:55

Location Description: [Surface Water/Sediment]

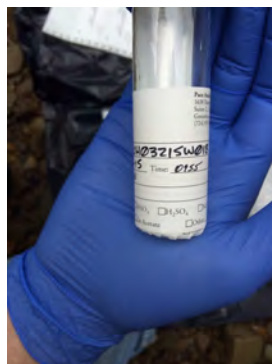
Primary Identifier: HAOH0321SW018

Observation Type: Sample-Pickup

Secondary Identifier: SW18

Observation Subtype: Surface Water

Comments: Light bubbles; Moderate flow; No odor, No sheen, No visible organisms; No wildlife present



ID: 133174

GPS: 39.70285, -80.90667

Date: 2015/03/21 10:25

Location Description: [Surface Water/Sediment]

Primary Identifier: HAOH0321SW017

Observation Type: Sample-Pickup

Secondary Identifier: SW17

Observation Subtype: Surface Water

Comments: Light foam/bubbles; Moderate flow; No odor, No sheen, No visible organisms; No wildlife present



ID: 133176

GPS: 39.69655, -80.90504

Date: 2015/03/21 10:55

Location Description: Unknown creek

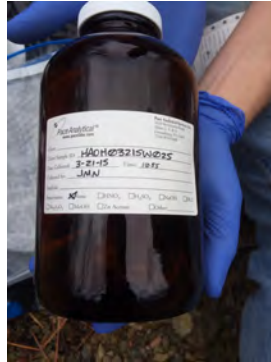
Primary Identifier: HAOH0321SW025

Observation Type: Sample-Pickup

Secondary Identifier: SW25

Observation Subtype: Surface Water

Comments: Light foam/bubbles; Moderate flow; No odor, No sheen, No visible organisms; No wildlife present



ID: 133173

GPS: 39.6944, -80.90365

Date: 2015/03/21 11:25

Location Description: [Surface Water/Sediment]

Primary Identifier: HAOH0321SW021

Observation Type: Sample-Pickup

Secondary Identifier: SW21

Observation Subtype: Surface Water

Comments: Light foam/bubbles; Moderate flow; No odor, No sheen, No visible organisms; No wildlife present



ID: 132362

GPS:

Date: 2015/03/21 12:32

Location Description: COCs

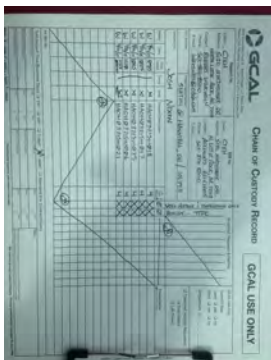
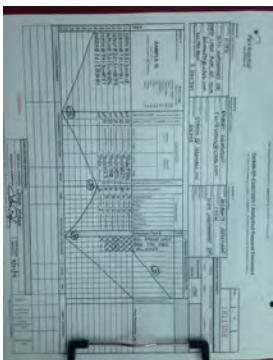
Primary Identifier: COCs

Observation Type: Chain Of Custody

Secondary Identifier: Pace & GCAL

Observation Subtype: COC

Comments: COCs for samples taken



Ohio Operations Incident Daily Site Activities - 03/22/2015

ID: 132360

Date: 2015/03/22 08:35

Primary Identifier: HAOH0322SW008

Secondary Identifier: SW08

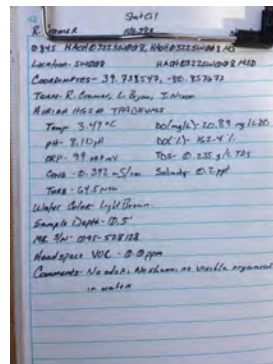
GPS: 39.73855, -80.85368

Location Description: Confluence of opossum creek and Ohio river.
[Surface Water/Sediment]

Observation Type: Sample-Pickup

Observation Subtype: Surface Water

Comments: Horiba #TPADEVMS MR # 095-528128 No odor, no sheen, no visible organics on water,



ID: 132359

Date: 2015/03/22 08:38

Primary Identifier: HAOH0322SW004

Secondary Identifier: SW04

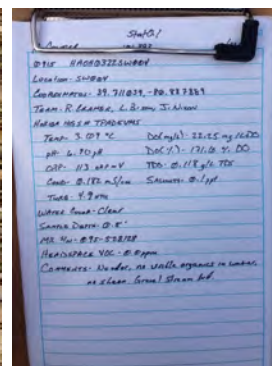
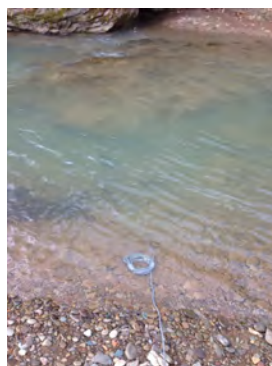
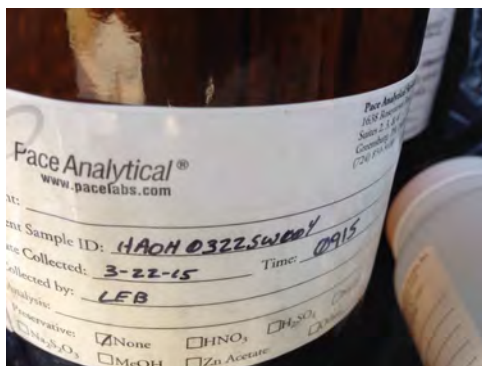
GPS: 39.71104, -80.88789

Location Description: End of hwy 404 on Opossum Creek. [Surface Water/Sediment]

Observation Type: Sample-Pickup

Observation Subtype: Surface Water

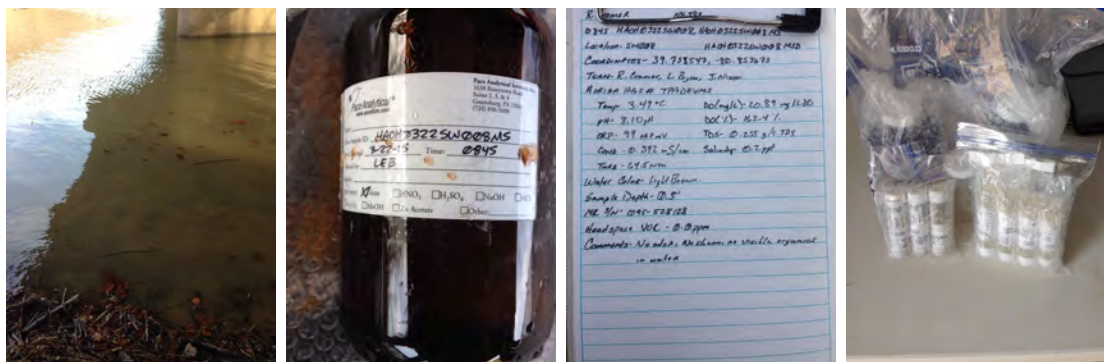
Comments: Horiba #TPADEVMS MR # 095-528128 No odor, no sheen, no visible organics on water, gravel stream bed



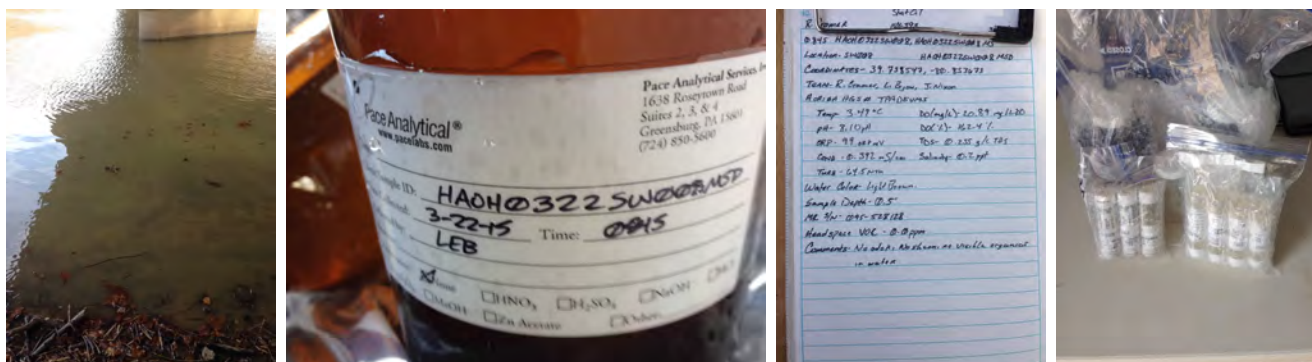
ID: 132364 **GPS:** 39.71469, -80.8975
Date: 2015/03/22 08:38 **Location Description:** [Surface Water/Sediment]
Primary Identifier: HAOH0322SW020 **Observation Type:** Sample-Pickup
Secondary Identifier: SW20 **Observation Subtype:** Surface Water
Comments: Horiba #TPADEVMS MR # 095-528128 No odor, no sheen, no visible organics on water, gravel stream bed



ID: 132365 **GPS:** 39.73791, -80.85168
Date: 2015/03/22 08:40 **Location Description:** Confluence of opossum creek and Ohio river. [Surface Water/Sediment]
Primary Identifier: HAOH0322SW008MS **Observation Type:** Sample-Pickup
Secondary Identifier: SW08MS **Observation Subtype:** Surface Water
Comments: Horiba #TPADEVMS MR # 095-528128 No odor, no sheen, no visible organics on water,



ID: 132363 **GPS:** 39.73798, -80.85179
Date: 2015/03/22 08:41 **Location Description:** Confluence of opossum creek and Ohio river. [Surface Water/Sediment]
Primary Identifier: HAOH0322SW008MSD **Observation Type:** Sample-Pickup
Secondary Identifier: SW08MSD **Observation Subtype:** Surface Water
Comments: Horiba #TPADEVMS MR # 095-528128 No odor, no sheen, no visible organics on water,



ID: 132361

GPS:

Date: 2015/03/22 10:45 **Location Description:** COCs

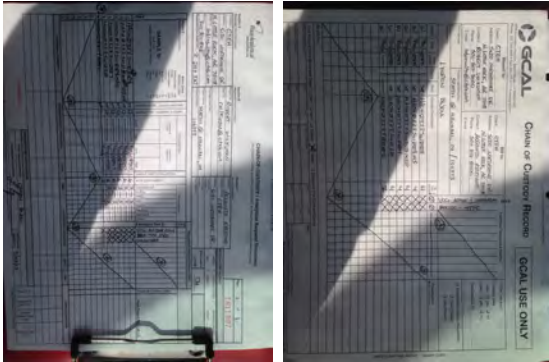
Primary Identifier: COCs

Observation Type: Chain Of Custody

Secondary Identifier: Pace & GCAL

Observation Subtype: COC

Comments: COCs for samples taken



ID: 141938

GPS:

Date: 2015/03/22 14:09 **Location Description:**

Primary Identifier: HAOH0322TB002

Observation Type: Sample-Pickup

Secondary Identifier:

Observation Subtype: Trip Blank

Comments:

Ohio Operations Incident Daily Site Activities - 03/23/2015

ID: 133381

GPS: 39.70099, -80.85343

Date: 2015/03/23 08:39

Location Description:

Primary Identifier: HAOH0323TB001

Observation Type: Sample-Pickup

Secondary Identifier: Blank

Observation Subtype: Surface Water

Comments: Pace trip blank



ID: 133379

GPS: 39.7011, -80.85381

Date: 2015/03/23 08:52

Location Description:

Primary Identifier: HAOH0323TB002

Observation Type: Sample-Pickup

Secondary Identifier: Blank

Observation Subtype: Surface Water

Comments: Gcal trip blank



ID: 133178

GPS: 39.69847, -80.89877

Date: 2015/03/23 10:15

Location Description: Sump 13

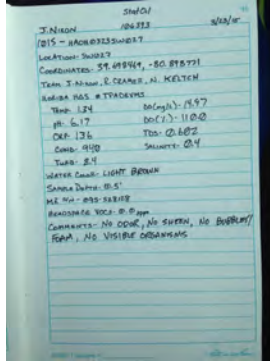
Primary Identifier: HAOH0323SW027

Observation Type: Sample-Pickup

Secondary Identifier: SW27

Observation Subtype: Surface Water

Comments: HORIBA HGS #: TPADEVMS; MR S/N: 095-528128; No odor; no sheen; no bubbles/foam; no visible organisms



ID: 133180

GPS: 39.69852, -80.90042

Date: 2015/03/23 10:30

Location Description: Pad Sample - [Outfall Location]

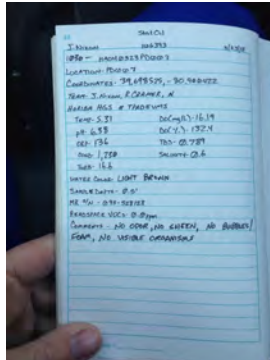
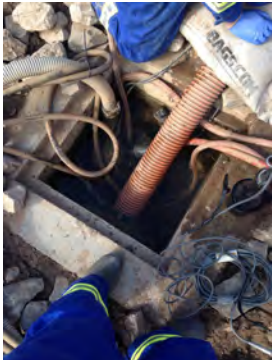
Primary Identifier: HAOH0323PD007

Observation Type: Sample-Pickup

Secondary Identifier: PD07

Observation Subtype: Surface Water

Comments: HORIBA HGS #: TPADEVMS; MR S/N: 095-528128; No odor; no sheen; no bubbles/foam; no visible organisms



ID: 133179

GPS: 39.69819, -80.90121

Date: 2015/03/23 10:45

Location Description: [Surface Water/Sediment]

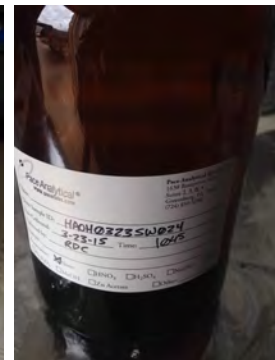
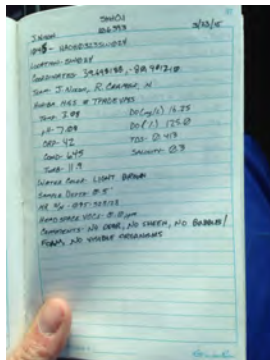
Primary Identifier: HAOH0323SW024

Observation Type: Sample-Pickup

Secondary Identifier: SW24

Observation Subtype: Surface Water

Comments: HORIBA HGS #: TPADEVMS; MR S/N: 095-528128; No odor; no sheen; no bubbles/foam; no visible organisms



ID: 133177

GPS: 39.69644, -80.89915

Date: 2015/03/23
11:00

Location Description: Pad Sample - 200 yards SW downhill from
pad. [Outfall Location]

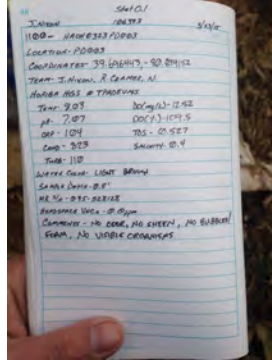
Primary Identifier: HAOH0323PD003

Observation Type: Sample-Pickup

Secondary Identifier: PD03

Observation Subtype: Surface Water

Comments: HORIBA HGS #: TPADEVMS; MR S/N: 095-528128; No odor; no sheen; no bubbles/foam; no visible organisms



ID: 133380

GPS: 39.70095, -80.85387

Date: 2015/03/23 11:46

Location Description:

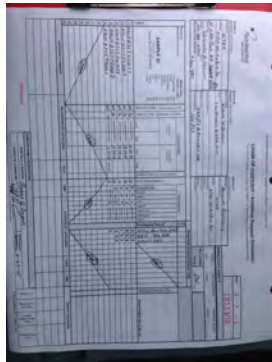
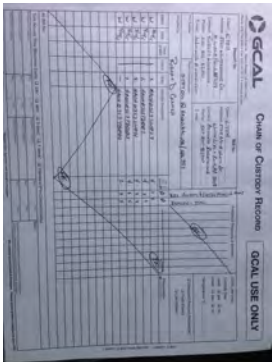
Primary Identifier: COCs

Observation Type: Chain Of Custody

Secondary Identifier: Pace and GCAL COCs

Observation Subtype: COC

Comments: Pace and GCAL COCs for 3-23-15



ID: 134719

GPS: 39.71015, -80.90333

Date: 2015/03/23 13:56

Location Description: [Surface Water/Sediment]

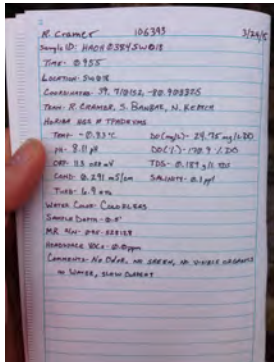
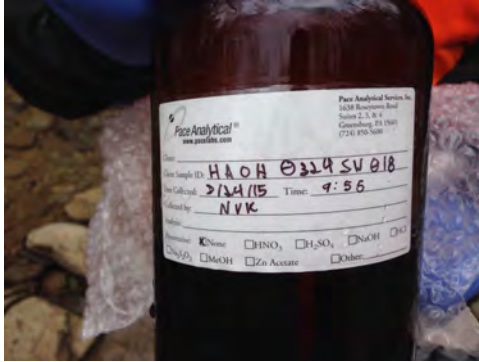
Primary Identifier: HAOH0324SW018

Observation Type: Sample-Pickup

Secondary Identifier: SW18

Observation Subtype: Surface Water

Comments: Horiba HGS #TPADEVMS MR S/N- 095-528128 No odor, no sheen, no visible organics in water, slow current



Ohio Operations Incident Daily Site Activities - 03/24/2015

ID: 134715

GPS: 39.70291, -80.90668

Date: 2015/03/24 10:25

Location Description: [Surface Water/Sediment]

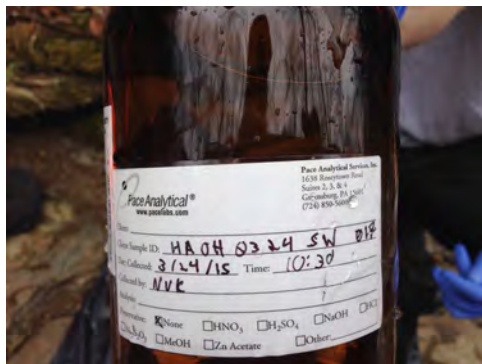
Primary Identifier: HAOH0324SW017

Observation Type: Sample-Pickup

Secondary Identifier: SW17

Observation Subtype: Surface Water

Comments: Horiba HGS #TPADEVMS MR S/N- 095-528128 No odor, no sheen, no visible organics in water, moderate current



ID: 134713

GPS: 39.69672, -80.90505

Date: 2015/03/24 10:52

Location Description:

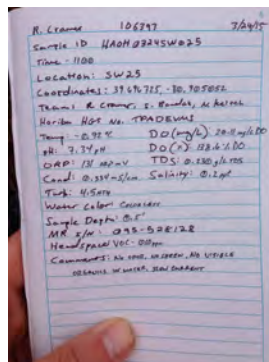
Primary Identifier: HAOH0324SW025

Observation Type: Sample-Pickup

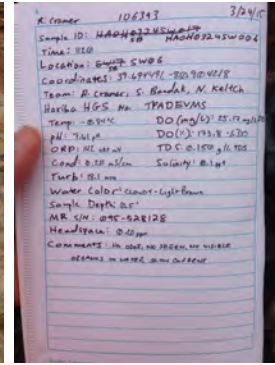
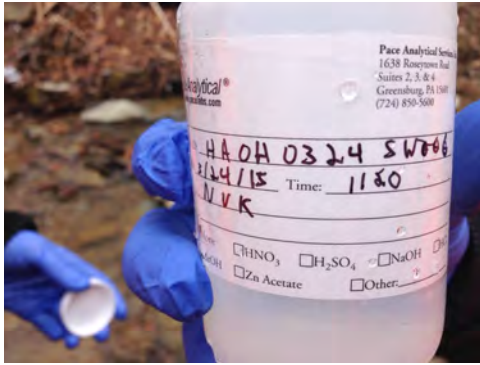
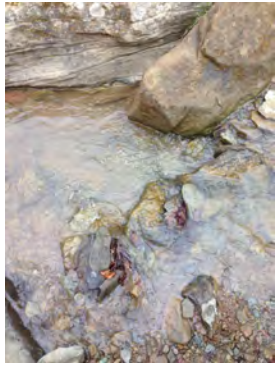
Secondary Identifier: SW25

Observation Subtype: Surface Water

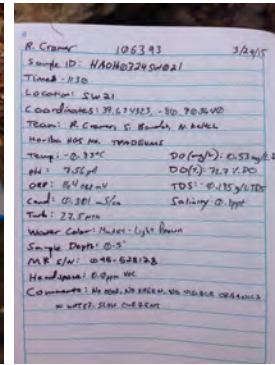
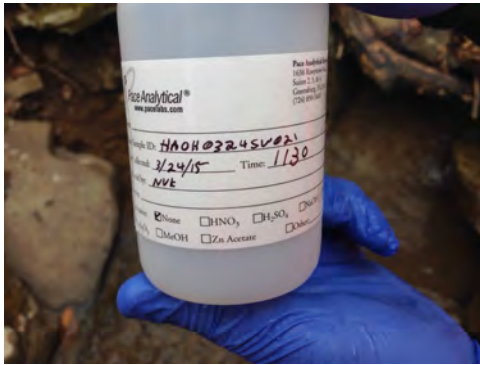
Comments: Horiba HGS #TPADEVMS MR S/N- 095-528128 No odor, no sheen, no visible organics in water, slow current



ID: 134718 **GPS:** 39.69449, -80.90422
Date: 2015/03/24 11:20 **Location Description:** Downstream of creek that conflues with ditch that runs by site. [Surface Water/Sediment]
Primary Identifier: HAOH0324SW006 **Observation Type:** Sample-Pickup
Secondary Identifier: SW06 **Observation Subtype:** Surface Water
Comments: Horiba HGS #TPADEVMS MR S/N- 095-528128 No odor, no sheen, no visible organics in water, slow current



ID: 134717 **GPS:** 39.69432, -80.90364
Date: 2015/03/24 11:27 **Location Description:** [Surface Water/Sediment]
Primary Identifier: HAOH0324SW021 **Observation Type:** Sample-Pickup
Secondary Identifier: SW21 **Observation Subtype:** Surface Water
Comments: Horiba HGS #TPADEVMS MR S/N- 095-528128 No odor, no sheen, no visible organics in water, slow current



ID: 134714

GPS: 39.70097, -80.85394

Date: 2015/03/24 13:46

Location Description:

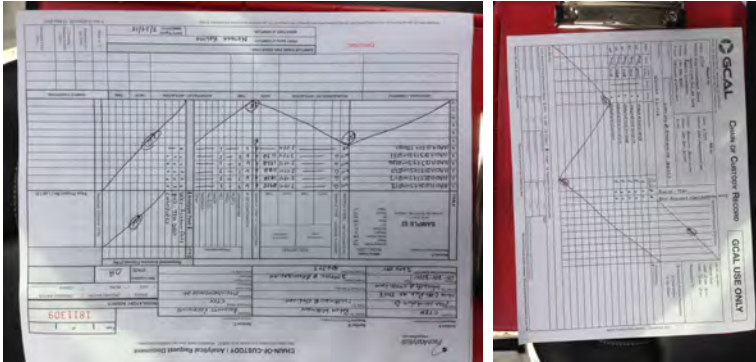
Primary Identifier: Pace and GCAL COCs

Observation Type: Chain Of Custody

Secondary Identifier:

Observation Subtype:

Comments: Pace and GCAL COCs



ID: 134716

GPS: 39.70031, -80.85355

Date: 2015/03/24 13:54

Location Description:

Primary Identifier: HAOH0324TB001

Observation Type: Sample-Pickup

Secondary Identifier: Blank

Observation Subtype: Blank Water

Comments: Pace trip blank



Ohio Operations Incident Daily Site Activities - 03/25/2015

ID: 134727

GPS: 39.7381, -80.85266

Date: 2015/03/25 09:10

Location Description: Confluence of opossum creek and Ohio river.
[Surface Water/Sediment]

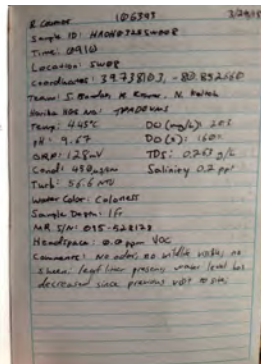
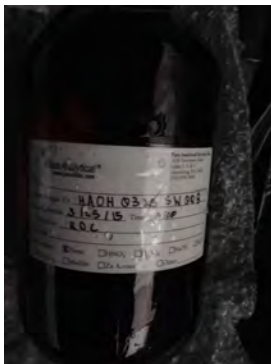
Primary Identifier: HAOH0325SW008

Observation Type: Sample-Pickup

Secondary Identifier: SW08

Observation Subtype: Surface Water

Comments: MR serial no. 095-528128; Horiba HGS No. TPADEVMS; No odor; no sheen; no wildlife visible; leaf litter present; water level dropped; light rain;



ID: 134724

GPS: 39.71101, -80.88787

Date: 2015/03/25 09:40

Location Description: End of hwy 404 on Opossum Creek. [Surface Water/Sediment]

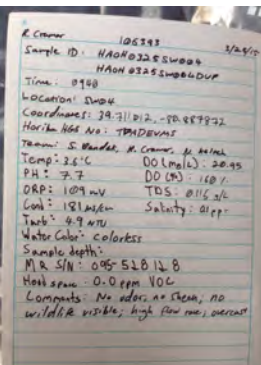
Primary Identifier: HAOH0325SW004

Observation Type: Sample-Pickup

Secondary Identifier: SW04

Observation Subtype: Surface Water

Comments: MR serial no. 095-528128; Horiba HGS No. TPADEVMS; No odor; no sheen; no wildlife visible; high flow rate; overcast;



ID: 134726

Date: 2015/03/25 09:40

Primary Identifier: HAOH0325SW004DUP

Secondary Identifier: SW04

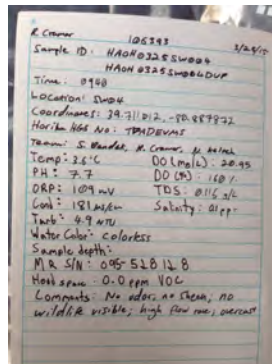
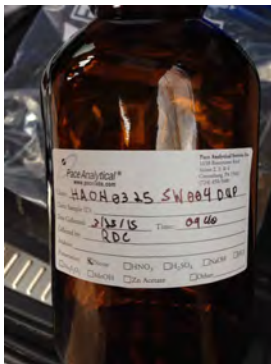
GPS: 39.71101, -80.88787

Location Description: End of hwy 404 on Opossum Creek.
[Surface Water/Sediment]

Observation Type: Sample-Pickup

Observation Subtype: Surface Water

Comments: MR serial no. 095-528128; Horiba HGS No. TPADEVMS; No odor; no sheen; no wildlife visible; high flow rate; overcast;



ID: 134728

Date: 2015/03/25 10:00

Primary Identifier: HAOH0325SW020

Secondary Identifier: SW20

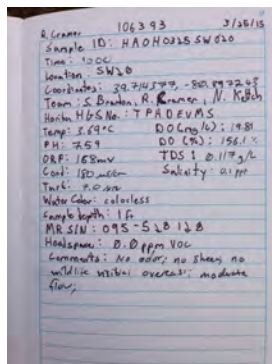
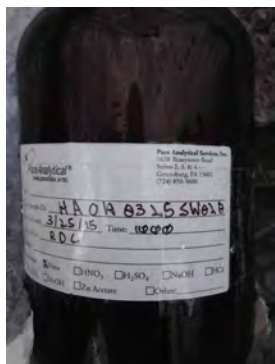
GPS: 39.71438, -80.89724

Location Description: [Surface Water/Sediment]

Observation Type: Sample-Pickup

Observation Subtype: Surface Water

Comments: MR serial no. 095-528128; Horiba HGS No. TPADEVMS; No odor; no sheen; no wildlife visible; overcast; moderate flow



ID: 134725

Date: 2015/03/25 11:06

Primary Identifier: COCs from 3/25/15

Secondary Identifier: GCAL; Pace

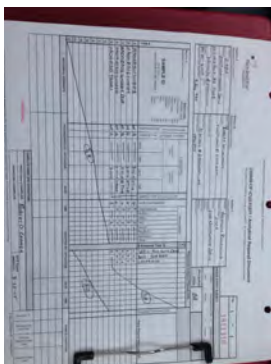
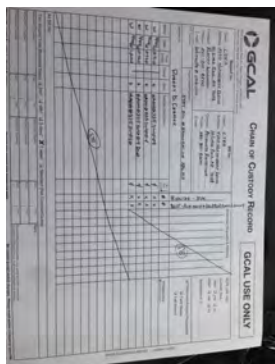
GPS:

Location Description:

Observation Type: Chain Of Custody

Observation Subtype: COC

Comments:



ID: 134723

GPS:

Date: 2015/03/25 11:11

Location Description:

Primary Identifier: HAOH0325TB001

Observation Type: Sample-Pickup

Secondary Identifier: Pace Trip Blank 3/25/15

Observation Subtype: Surface Water

Comments:



Ohio Operations Incident Daily Site Activities - 03/26/2015

ID: 137051

GPS: 39.69839, -80.89885

Date: 2015/03/26 08:00

Location Description: Sump 13

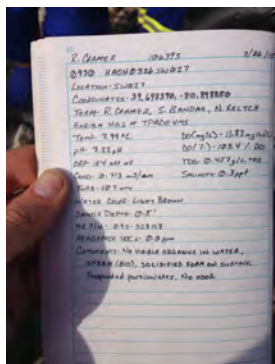
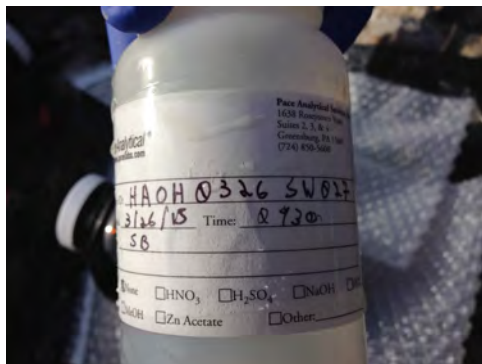
Primary Identifier: HAOH0326SW027

Observation Type: Sample-Pickup

Secondary Identifier: SW27

Observation Subtype: Surface Water

Comments: HORIBA HGS # TPADEVMS MR S/N- 095-528128 No odor, sheen (bio), no visible organics in water, solidified foam on surface, suspended particulates.



ID: 137047

GPS: 39.6985, -80.90026

Date: 2015/03/26 08:03

Location Description: Pad Sample - [Outfall Location]

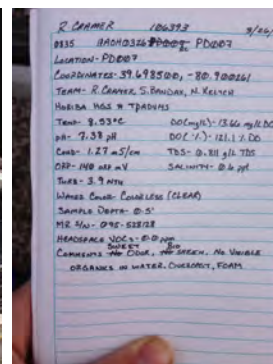
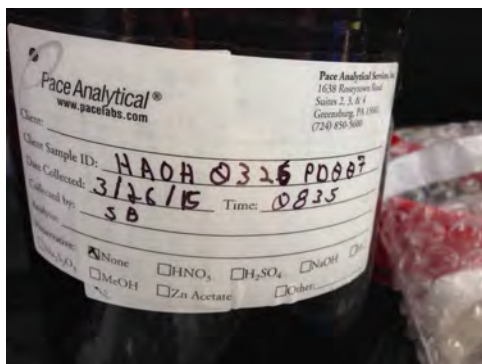
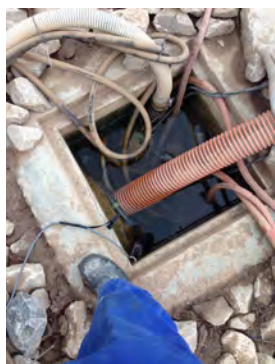
Primary Identifier: HAOH0326PD007

Observation Type: Sample-Pickup

Secondary Identifier: PD07

Observation Subtype: Surface Water

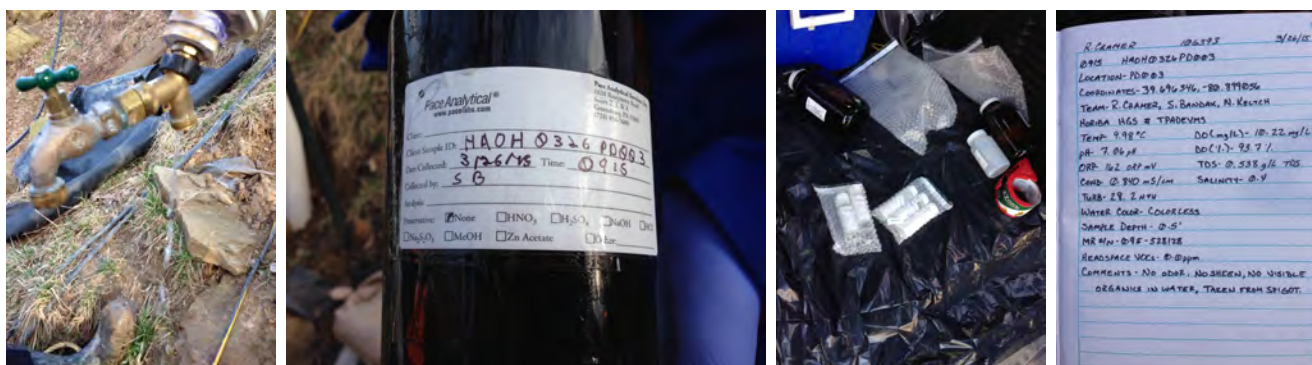
Comments: HORIBA HGS # TPADEVMS MR S/N- 095-528128 Sweet odor, biosheen, no visible organics in water, overcast, foam present



ID: 137050 **GPS:** 39.69794, -80.90112
Date: 2015/03/26 08:03 **Location Description:** [Surface Water/Sediment]
Primary Identifier: HAOH0326SW024 **Observation Type:** Sample-Pickup
Secondary Identifier: SW24 **Observation Subtype:** Surface Water
Comments: HORIBA HGS # TPADEVMS MR S/N- 095-528128 Slight odor, no sheen, no visible organics in water, flowing



ID: 137049 **GPS:** 39.69635, -80.89906
Date: 2015/03/26 08:04 **Location Description:** Pad Sample - 200 yards SW downhill from pad. [Outfall Location]
Primary Identifier: HAOH0326PD003 **Observation Type:** Sample-Pickup
Secondary Identifier: PD03 **Observation Subtype:** Surface Water
Comments: HORIBA HGS # TPADEVMS MR S/N- 095-528128 No odor, no sheen, no visible organics in water, taken from apogot



ID: 137048 **GPS:** 39.70076, -80.85399
Date: 2015/03/26 10:11 **Location Description:**
Primary Identifier: HAOH0326TB002 **Observation Type:** Sample-Pickup
Secondary Identifier: GCAL trip blank **Observation Subtype:** Blank Water
Comments: GCAL trip blank



ID: 137052

GPS: 39.7009, -80.85371

Date: 2015/03/26 10:12

Location Description:

Primary Identifier: HAOH0326TB001

Observation Type: Sample-Pickup

Secondary Identifier: Pace trip blank

Observation Subtype: Blank Water

Comments:



ID: 137046

GPS: 39.70092, -80.85379

Date: 2015/03/26 10:17

Location Description:

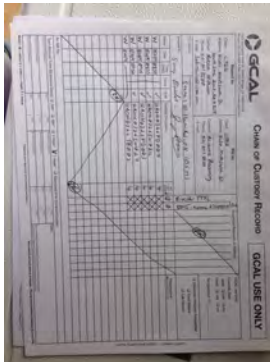
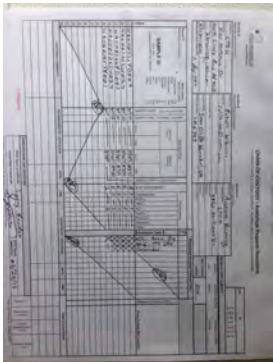
Primary Identifier: Pace and GCAL COCs

Observation Type: Chain Of Custody

Secondary Identifier: COCs

Observation Subtype: COC

Comments: Pace and GCAL COCs



Ohio Operations Incident Daily Site Activities - 03/27/2015

ID: 140225

GPS:

Date: 2015/03/27 05:39

Location Description:

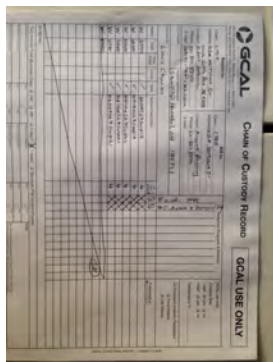
Primary Identifier: GCAL COC

Observation Type: Chain Of Custody

Secondary Identifier:

Observation Subtype: COC

Comments:



ID: 140204

GPS: 39.71032, -80.90379

Date: 2015/03/27 11:25

Location Description: [Surface Water/Sediment]

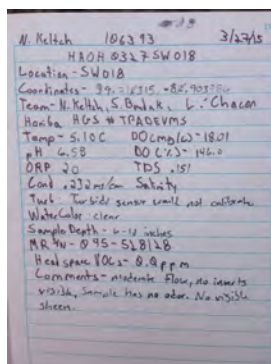
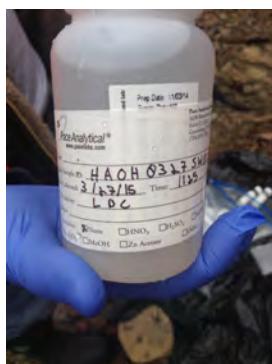
Primary Identifier: HAOH0327SW018

Observation Type: Sample-Pickup

Secondary Identifier: SW18

Observation Subtype: Surface Water

Comments: Sample has no odor and no visible sheen. Water has moderate flow rate. No inverts present.



ID: 140584

GPS: 39.70299, -80.90727

Date: 2015/03/27 12:05

Location Description: [Surface Water/Sediment]

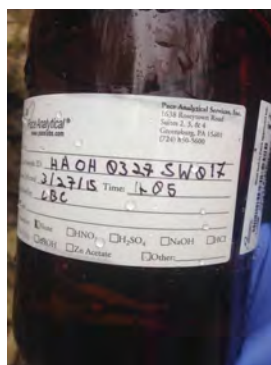
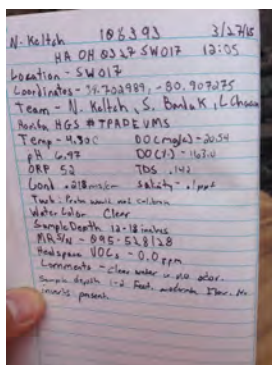
Primary Identifier: HAOH0327SW017

Observation Type: Sample-Pickup

Secondary Identifier: SW17

Observation Subtype: Surface Water

Comments: Water is clear w no odor. Moderate flow. No inverts present. 12-18 inches of water



ID: 140200

GPS: 39.69663, -80.90523

Date: 2015/03/27 12:45

Location Description:

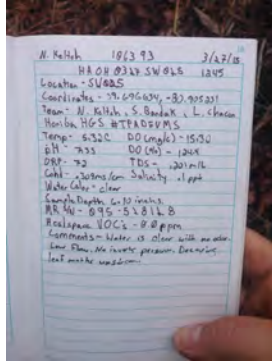
Primary Identifier: HAOH0327SW025

Observation Type: Sample-Pickup

Secondary Identifier: SW25

Observation Subtype: Surface Water

Comments: Water is clear with no odor. Low flow at sample location. Decaying leaf litter upstream. No inverts present.



ID: 140201

GPS: 39.69471, -80.90431

Date: 2015/03/27 13:10

Location Description: Downstream of creek that confluent with ditch that runs by site. [Surface Water/Sediment]

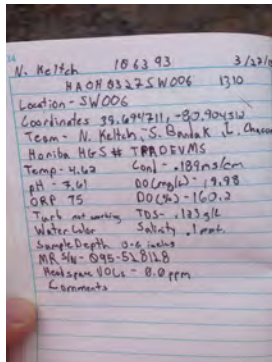
Primary Identifier: HAOH0327SW006

Observation Type: Sample-Pickup

Secondary Identifier: SW06

Observation Subtype: Surface Water

Comments: Water is clear with no odor. Low to moderate flow. No inverts



ID: 140199

GPS: 39.69438, -80.90347

Date: 2015/03/27 13:20

Location Description: [Surface Water/Sediment]

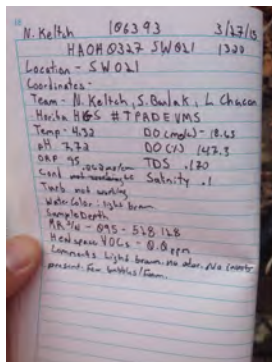
Primary Identifier: HAOH0327SW021

Observation Type: Sample-Pickup

Secondary Identifier: SW21

Observation Subtype: Surface Water

Comments: Sample is light brown. A few small bubbles/foam. No odor. Horiba depth 6-12 inches.



ID: 140203

GPS:

Date: 2015/03/27 15:09

Location Description:

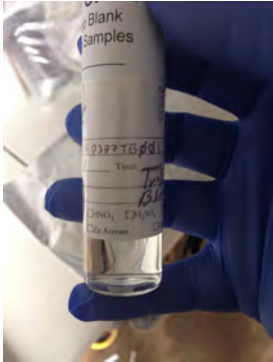
Primary Identifier: HAOH0327TB001

Observation Type: Sample-Pickup

Secondary Identifier: Blank

Observation Subtype: Blank Water

Comments:



ID: 140202

GPS:

Date: 2015/03/27 15:16

Location Description:

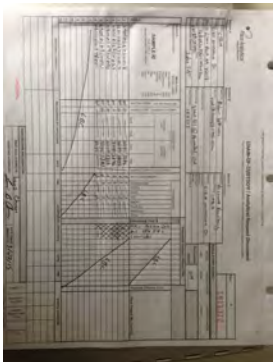
Primary Identifier:

Observation Type: Chain Of Custody

Secondary Identifier:

Observation Subtype: COC

Comments:



Ohio Operations Incident Daily Site Activities - 03/28/2015

ID: 140220

GPS: 39.73754, -80.8523

Date: 2015/03/28 09:00

Location Description: Confluence of opossum creek and Ohio river.
[Surface Water/Sediment]

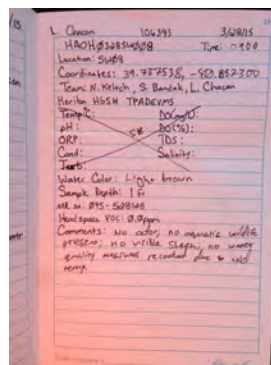
Primary Identifier: HAOH0328SW008

Observation Type: Sample-Pickup

Secondary Identifier: SW08

Observation Subtype: Surface Water

Comments: Horiba HGS no. TPADEVMS; MR S/N: 095-528128; no odor; no aquatic wildlife present; no visible sheen; No water quality parameters recorded because the Horiba could not be used in below freezing temperatures;



ID: 140218

GPS: 39.71091, -80.88795

Date: 2015/03/28 09:30

Location Description: End of hwy 404 on Opossum Creek. [Surface Water/Sediment]

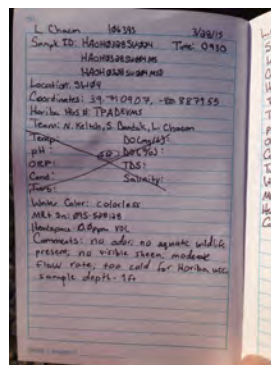
Primary Identifier: HAOH0328SW004

Observation Type: Sample-Pickup

Secondary Identifier: SW04

Observation Subtype: Surface Water

Comments: Horiba HGS no. TPADEVMS; MR S/N: 095-528128; no odor; no aquatic wildlife present; no visible sheen; moderate flow rate; No water quality parameters recorded because the Horiba could not be used in below freezing temperatures;



ID: 140221

GPS: 39.71091, -80.88795

Date: 2015/03/28 09:30

Location Description: End of hwy 404 on Opossum Creek.
[Surface Water/Sediment]

Primary Identifier: HAOH0328SW004MS

Observation Type: Sample-Pickup

Secondary Identifier: SW04

Observation Subtype: Surface Water

Comments: Horiba HGS no. TPADEVMS; MR S/N: 095-528128; no odor; no aquatic wildlife present; no visible sheen; moderate flow rate; No water quality parameters recorded because the Horiba could not be used in below freezing temperatures;



ID: 140224

GPS: 39.71091, -80.88795

Date: 2015/03/28 09:30

Location Description: End of hwy 404 on Opossum Creek.
[Surface Water/Sediment]

Primary Identifier: HAOH0328SW004MSD

Observation Type: Sample-Pickup

Secondary Identifier: SW04

Observation Subtype: Surface Water

Comments: Horiba HGS no. TPADEVMS; MR S/N: 095-528128; no odor; no aquatic wildlife present; no visible sheen; moderate flow rate; No water quality parameters recorded because the Horiba could not be used in below freezing temperatures;



ID: 140222

GPS: 39.71434, -80.89725

Date: 2015/03/28 10:30

Location Description: [Surface Water/Sediment]

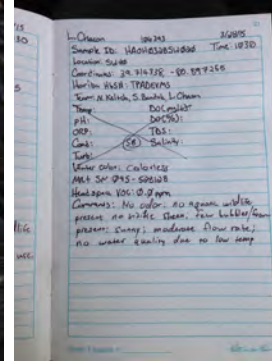
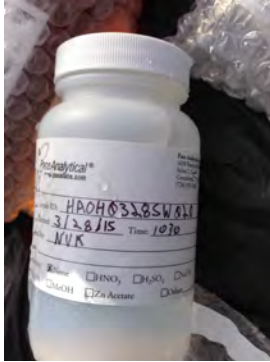
Primary Identifier: HAOH0328SW020

Observation Type: Sample-Pickup

Secondary Identifier: SW20

Observation Subtype: Surface Water

Comments: Horiba HGS no. TPADEVMS; MR S/N: 095-528128; no odor; no aquatic wildlife present; no visible sheen; few bubbles/foam visible near sample site; sunny; moderate flow rate; No water quality parameters recorded because the Horiba could not be used in below freezing temperatures;



ID: 140223

GPS:

Date: 2015/03/28 11:27

Location Description:

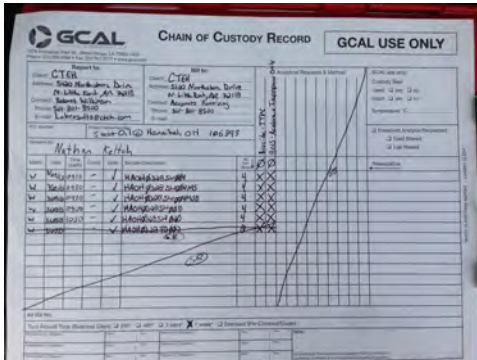
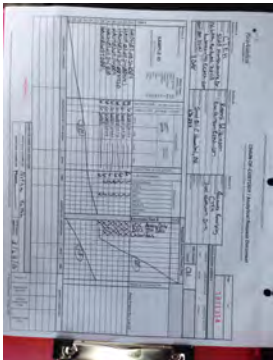
Primary Identifier: Pace and GCAL COCs

Observation Type: Chain Of Custody

Secondary Identifier:

Observation Subtype: COC

Comments:



ID: 140219

GPS:

Date: 2015/03/28 11:33

Location Description:

Primary Identifier: HAOH0328TB001

Observation Type: Sample-Pickup

Secondary Identifier: Pace Trip Blank

Observation Subtype: Surface Water

Comments:



Ohio Operations Incident Daily Site Activities - 03/29/2015

ID: 140586

GPS: 39.69857, -80.90042

Date: 2015/03/29 08:50

Location Description: Pad Sample - [Outfall Location]

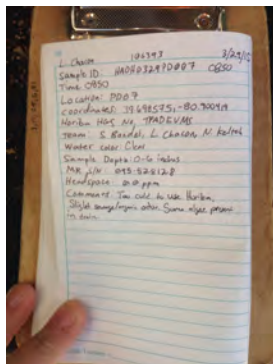
Primary Identifier: HAOH0329PD007

Observation Type: Sample-Pickup

Secondary Identifier: PD07

Observation Subtype: Surface Water

Comments: Water is clear with slight organic/sewer odor. Some algae present in drain. No horiba data due to cold temperatures.



ID: 140587

GPS: 39.69797, -80.90118

Date: 2015/03/29 09:10

Location Description: [Surface Water/Sediment]

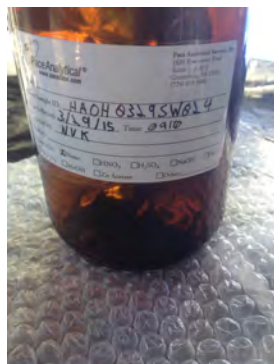
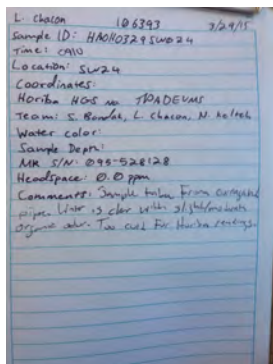
Primary Identifier: HAOH0329SW024

Observation Type: Sample-Pickup

Secondary Identifier: SW24

Observation Subtype: Surface Water

Comments: Sample is colorless with slight organic odor. Too cold for Hariba. Sample taken from corrugated pipe.



ID: 140585

GPS: 39.69608, -80.89967

Date: 2015/03/29
09:30

Location Description: Pad Sample - 200 yards SW downhill from
pad. [Outfall Location]

Primary Identifier: HAOH0329PD003

Observation Type: Sample-Pickup

Secondary Identifier: PD03

Observation Subtype: Surface Water

Comments: Too cold for Horiba readings. Water is clear with no odor. Taken



ID: 140588

GPS: 39.69881, -80.89882

Date: 2015/03/29 09:45

Location Description: Sump 13

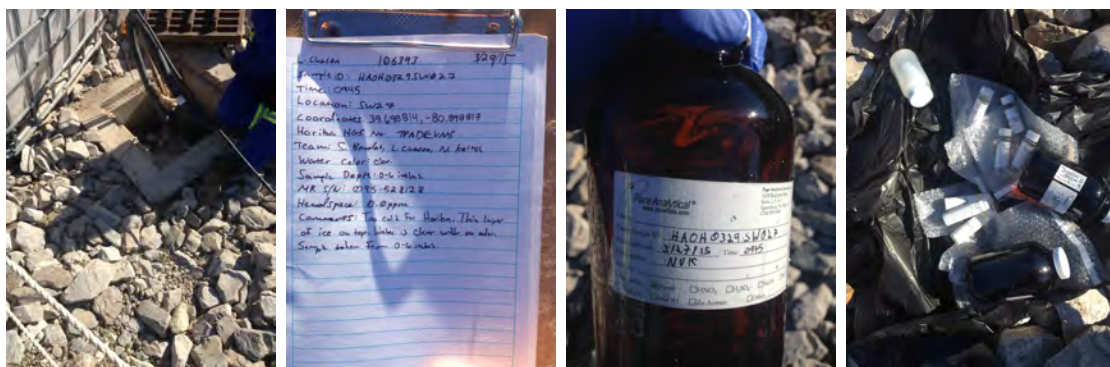
Primary Identifier: HAOH0329SW027

Observation Type: Sample-Pickup

Secondary Identifier: SW27

Observation Subtype: Surface Water

Comments: Water has thin layer of ice on top. Water is clear with no odor. Too cold for Horiba.



ID: 140692

GPS:

Date: 2015/03/29 10:35

Location Description:

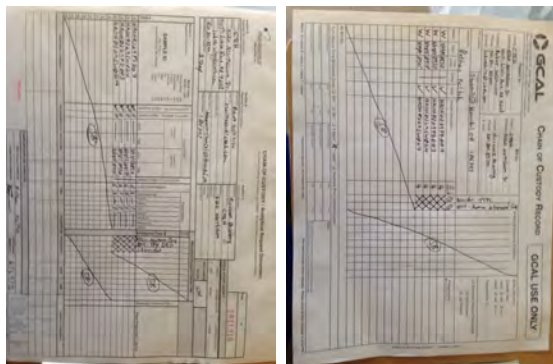
Primary Identifier: Pace and GCAL COCs

Observation Type: Chain Of Custody

Secondary Identifier:

Observation Subtype: COC

Comments:



Ohio Operations Incident Daily Site Activities - 03/30/2015

ID: 140908

GPS: 39.71022, -80.90321

Date: 2015/03/30 11:00

Location Description: [Surface Water/Sediment]

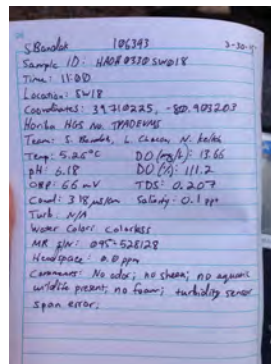
Primary Identifier: HAOH0330SW018

Observation Type: Sample-Pickup

Secondary Identifier: SW18

Observation Subtype: Surface Water

Comments: Horiba HGS no. TPADEVMS; MR S/N 095-528128; no odor; no sheen; no aquatic wildlife present; no foam/ bubbles; turbidity sensor span error;



ID: 140912

GPS: 39.70274, -80.90688

Date: 2015/03/30 11:40

Location Description: [Surface Water/Sediment]

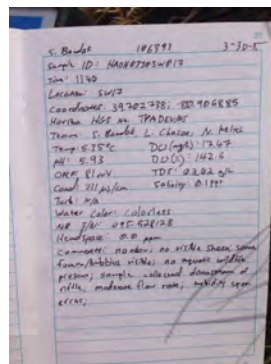
Primary Identifier: HAOH0330SW017

Observation Type: Sample-Pickup

Secondary Identifier: SW17

Observation Subtype: Surface Water

Comments: Horiba HGS no. TPADEVMS; MR S/N 095-528128; no odor; no sheen; no aquatic wildlife present; some foam/ bubbles present; sample collected downstream of small riffle; moderate flow rate; turbidity sensor span error;



ID: 140907

GPS: 39.69668, -80.90514

Date: 2015/03/30 12:10

Location Description:

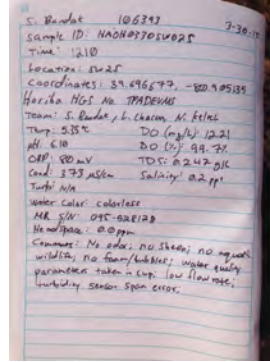
Primary Identifier: HAOH0330SW025

Observation Type: Sample-Pickup

Secondary Identifier: SW25

Observation Subtype: Surface Water

Comments: Horiba HGS no. TPADEVMS; MR S/N 095-528128; no odor; no sheen; no aquatic wildlife present; no foam/ bubbles; water quality parameters taken in cup; turbidity sensor span error; low flow rate;



ID: 140913

GPS: 39.69442, -80.90432

Date: 2015/03/30 12:30

Location Description: Downstream of creek that confluent with ditch that runs by site. [Surface Water/ Sediment]

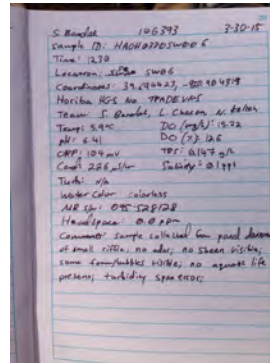
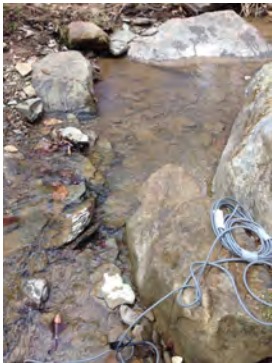
Primary Identifier: HAOH0330SW006

Observation Type: Sample-Pickup

Secondary Identifier: SW06

Observation Subtype: Surface Water

Comments: Horiba HGS no. TPADEVMS; MR S/N 095-528128; sample collected in pond downstream of riffle; no odor; no sheen; no aquatic wildlife present; some foam/ bubbles present; turbidity sensor span error;



ID: 140911

GPS: 39.69432, -80.90365

Date: 2015/03/30 12:50

Location Description: [Surface Water/Sediment]

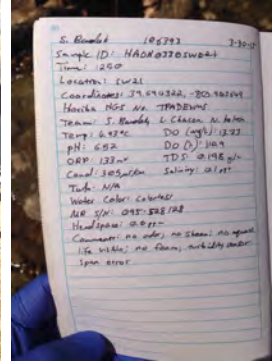
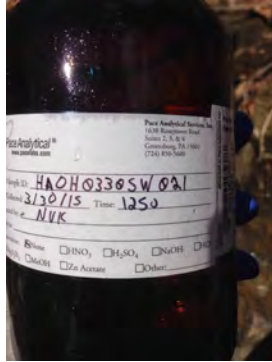
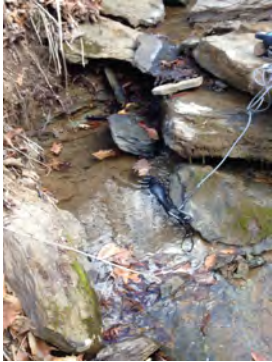
Primary Identifier: HAOH0330SW021

Observation Type: Sample-Pickup

Secondary Identifier: SW21

Observation Subtype: Surface Water

Comments: Horiba HGS no. TPADEVMS; MR S/N 095-528128; no odor; no sheen; no aquatic wildlife present; no foam/ bubbles; turbidity sensor span error;



ID: 140910

GPS:

Date: 2015/03/30 13:24

Location Description:

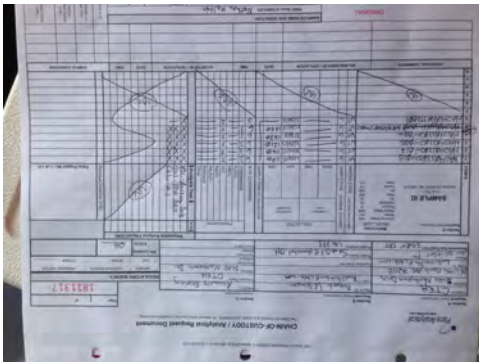
Primary Identifier: GCAL and Pace COCs

Observation Type: Chain Of Custody

Secondary Identifier:

Observation Subtype: COC

Comments:



ID: 140909

GPS:

Date: 2015/03/30 13:34

Location Description:

Primary Identifier: HAOH0330TB001

Observation Type: Sample-Pickup

Secondary Identifier: Pace Trip Blank

Observation Subtype: Surface Water

Comments:



ID: 140906

GPS:

Date: 2015/03/30 13:40

Location Description:

Primary Identifier: HAOH0330TB002

Observation Type: Sample-Pickup

Secondary Identifier: GCAL Trip Blank

Observation Subtype: Surface Water

Comments:



Ohio Operations Incident Daily Site Activities - 03/31/2015

ID: 140933

GPS: 39.73855, -80.85223

Date: 2015/03/31 10:25

Location Description: Confluence of opossum creek and Ohio river.
[Surface Water/Sediment]

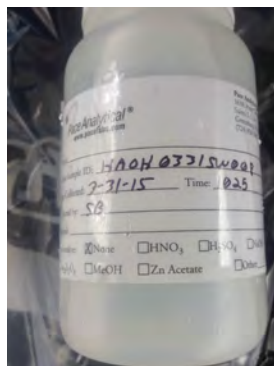
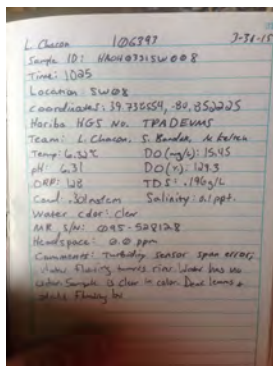
Primary Identifier: HAOH0331SW008

Observation Type: Sample-Pickup

Secondary Identifier: SW08

Observation Subtype: Surface Water

Comments: Sample is clear with no odor. Some dead leaves and sticks floating by. Water is flowing towards river. No turbidity readings due to sensor not spanning.



ID: 140935

GPS: 39.71095, -80.88781

Date: 2015/03/31 10:50

Location Description: End of hwy 404 on Opossum Creek. [Surface Water/Sediment]

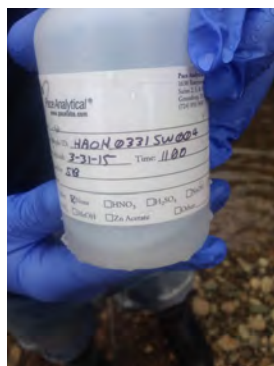
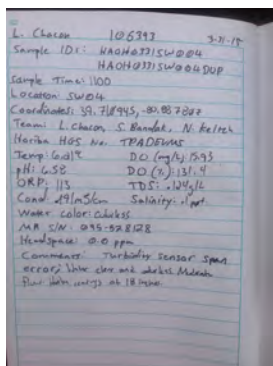
Primary Identifier: HAOH0331SW004

Observation Type: Sample-Pickup

Secondary Identifier: SW04

Observation Subtype: Surface Water

Comments: Water is clear and odorless. Horiba readings taken at 18 inches. No turbidity due to spanning error.



ID: 140932

GPS: 39.71095, -80.88781

Date: 2015/03/31 10:50

Location Description: End of hwy 404 on Opossum Creek.
[Surface Water/Sediment]

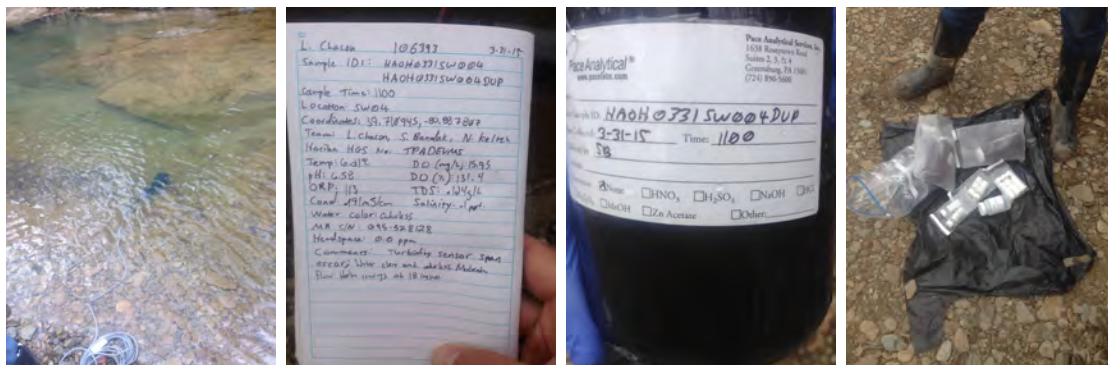
Primary Identifier: HAOH0331SW004DUP

Observation Type: Sample-Pickup

Secondary Identifier: SW04

Observation Subtype: Surface Water

Comments: Water is clear and odorless. Horiba readings taken at 18 inches. No turbidity due to spanning error.



ID: 140931

GPS: 39.71452, -80.89722

Date: 2015/03/31 11:30

Location Description: [Surface Water/Sediment]

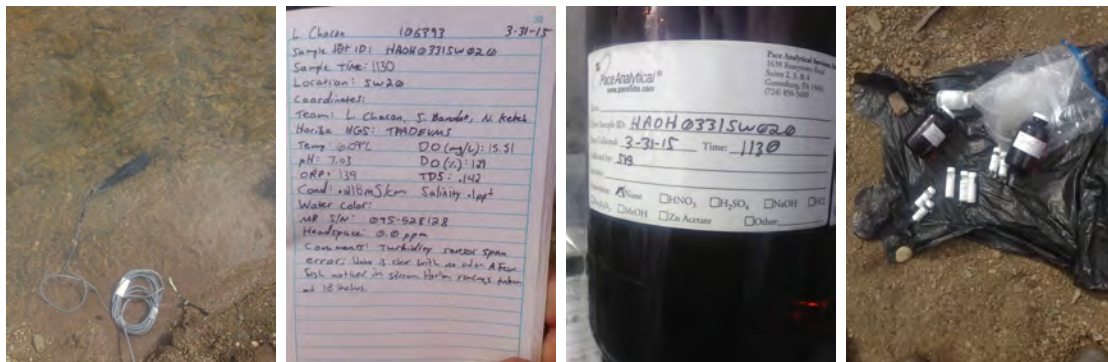
Primary Identifier: HAOH0331SW020

Observation Type: Sample-Pickup

Secondary Identifier: SW20

Observation Subtype: Surface Water

Comments: Water is clear and odorless. Horiba reading taken at 18 inches. A few aquatic organisms present. Slight to moderate flow.



ID: 140930

GPS:

Date: 2015/03/31 12:39

Location Description:

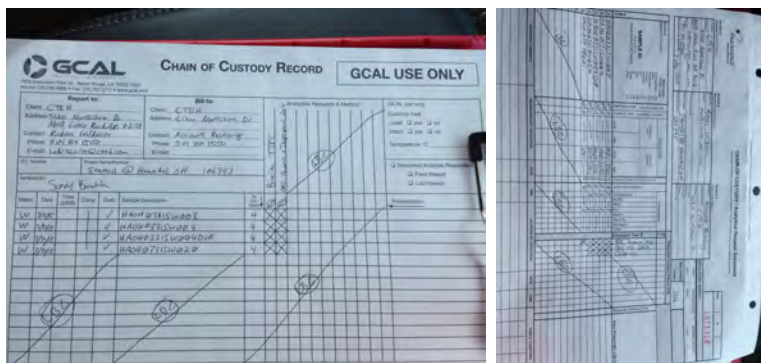
Primary Identifier:

Observation Type: Chain Of Custody

Secondary Identifier:

Observation Subtype: COC

Comments:



ID: 140934

GPS:

Date: 2015/03/31 12:43

Location Description:

Primary Identifier: HAOH0331TB001

Observation Type: Sample-Pickup

Secondary Identifier: Blank

Observation Subtype: Blank Water

Comments:



Ohio Operations Incident Daily Site Activities - 04/01/2015

GPS:

Location Description:

Observation Type: Sample-Pickup

Observation Subtype: Surface Water

Comments:



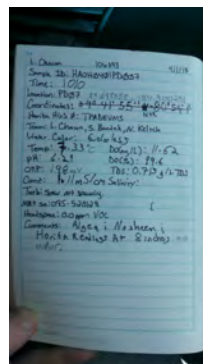
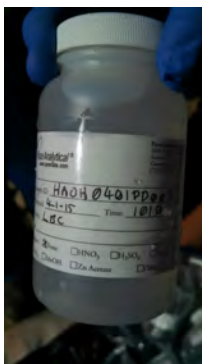
GPS: 39.69856, -80.90029

Location Description: Pad Sample - [Outfall Location]

Observation Type: Sample-Pickup

Observation Subtype: Surface Water

Comments: Horiba HGS No: TPADEVMS; MR S/N 095-528128; algae; no sheen; horiba at 8 inches; no odor;



ID: 140975

GPS: 39.69814, -80.90113

Date: 2015/04/01 11:00

Location Description: [Surface Water/Sediment]

Primary Identifier: HAOH0401SW024

Observation Type: Sample-Pickup

Secondary Identifier: SW24

Observation Subtype: Surface Water

Comments: Horiba HGS No: TPADEVMS; MR S/N 095-528128; organic smell; horiba readings taken from cup; sample collected from spicket in PVC pipe



ID: 141060

GPS: 39.69814, -80.90113

Date: 2015/04/01
11:00

Location Description: Pad Sample - 200 yards SW downhill from
pad. [Outfall Location]

Primary Identifier: HAOH0401PD003

Observation Type: Sample-Pickup

Secondary Identifier: PD03

Observation Subtype: Surface Water

Comments: Horiba HGS No: TPADEVMS; MR S/N 095-528128; no odor; colorless, taken cup; taken from PVC and water spiccot



ID: 141061

GPS: 39.69869, -80.89881

Date: 2015/04/01 11:20

Location Description: Sump 13

Primary Identifier: HAOH0401SW027

Observation Type: Sample-Pickup

Secondary Identifier: SW27

Observation Subtype: Surface Water

Comments: Horiba HGS No: TPADEVMS; MR S/N 095-528128; organic matter; sheen; moderate suspended particulates; taken from cap; light brown;



Ohio Operations Incident Daily Site Activities - 04/02/2015

ID: 141062

GPS:

Date: 2015/04/02 09:21

Location Description:

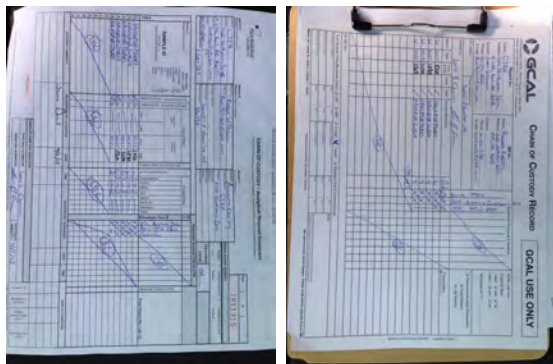
Primary Identifier:

Observation Type: Chain Of Custody

Secondary Identifier:

Observation Subtype: COC

Comments:



ID: 141080

GPS: 39.71018, -80.90323

Date: 2015/04/02 10:50

Location Description: [Surface Water/Sediment]

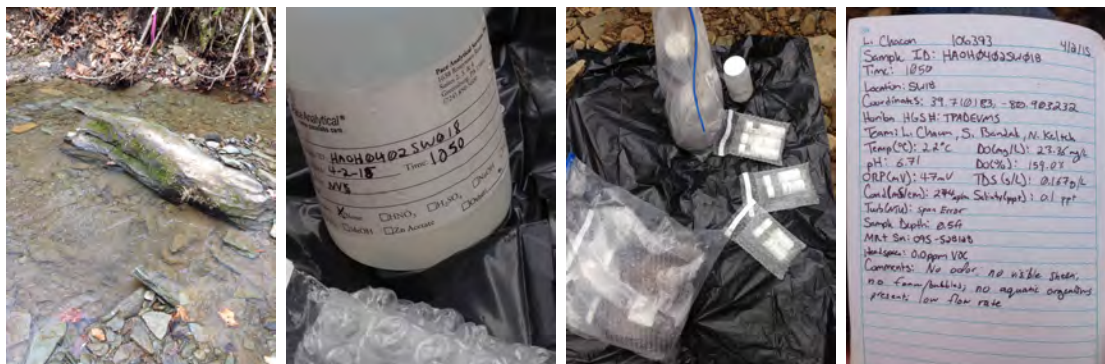
Primary Identifier: HAOH0402SW018

Observation Type: Sample-Pickup

Secondary Identifier: SW18

Observation Subtype: Surface Water

Comments: Horiba HGS no: TPADEVMS;MR S/N 095-528128; no odor; no visible sheen; no foam/bubbles; no aquatic organisms present; two extra Amber jars collected at this site



ID: 141083

GPS: 39.70279, -80.90652

Date: 2015/04/02 11:30

Location Description: [Surface Water/Sediment]

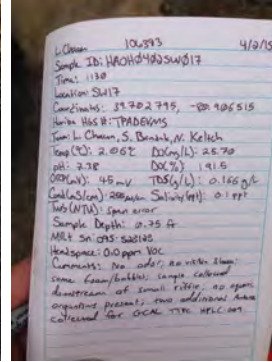
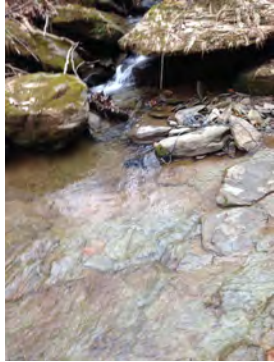
Primary Identifier: HAOH0402SW017

Observation Type: Sample-Pickup

Secondary Identifier: SW17

Observation Subtype: Surface Water

Comments: Horiba HGS no: TPADEVMS;MR S/N 095-528128; no odor; no visible sheen; some foam/bubbles; sample collected downstream of small riffle; no aquatic organisms present; 2 additional ambers collected for GCAL TTPC HPLC-009 method; turbidity span error



ID: 141081

GPS: 39.69667, -80.90512

Date: 2015/04/02 12:05

Location Description:

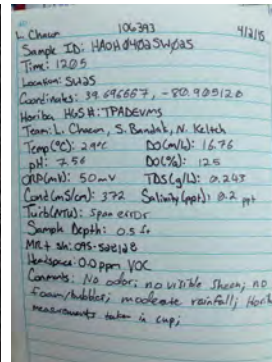
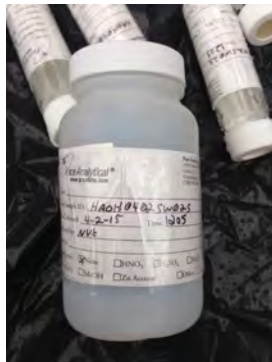
Primary Identifier: HAOH0402SW025

Observation Type: Sample-Pickup

Secondary Identifier: SW25

Observation Subtype: Surface Water

Comments: Horiba HGS no: TPADEVMS;MR S/N 095-528128; no odor; no visible sheen; no foam/bubbles; moderate rainfall; Horiba measurements taken in cup;



ID: 141082

GPS:

Date: 2015/04/02 12:50

Location Description:

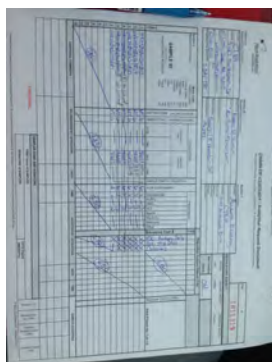
Primary Identifier: Pace and GCAL COCs

Observation Type: Chain Of Custody

Secondary Identifier:

Observation Subtype: COC

Comments:



ID: 141078

GPS:

Date: 2015/04/02 13:06

Location Description:

Primary Identifier: HAOH0402TB002

Observation Type: Sample-Pickup

Secondary Identifier: Blank

Observation Subtype: Blank Water

Comments:



ID: 141079

GPS:

Date: 2015/04/02 13:11

Location Description:

Primary Identifier: HAOH0402TB001

Observation Type: Sample-Pickup

Secondary Identifier: Blank

Observation Subtype: Blank Water

Comments:



Ohio Operations Incident Daily Site Activities - 04/03/2015

ID: 141179

GPS: 39.69849, -80.90035

Date: 2015/04/03 09:35

Location Description: Pad Sample - [Outfall Location]

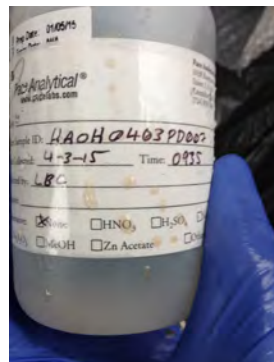
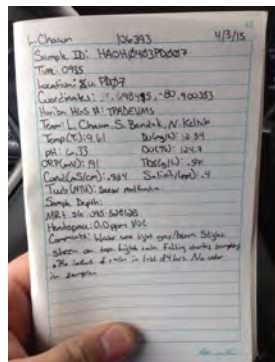
Primary Identifier: HAOH0403PD007

Observation Type: Sample-Pickup

Secondary Identifier: PD07

Observation Subtype: Surface Water

Comments: Slight sheen on top of water. Color is light brown. No odor. Light rain falling at sample time.



ID: 141175

GPS: 39.69801, -80.90112

Date: 2015/04/03 09:55

Location Description: [Surface Water/Sediment]

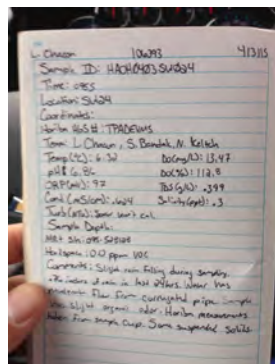
Primary Identifier: HAOH0403SW024

Observation Type: Sample-Pickup

Secondary Identifier: SW24

Observation Subtype: Surface Water

Comments: Water has moderate flow rate from corrugated pipe. Sample is light brown with some suspended solids. Sample has a slight organic odor.



ID: 141177

Date: 2015/04/03 10:15

Primary Identifier: HAOH0403PD003MSD

Secondary Identifier: PD03

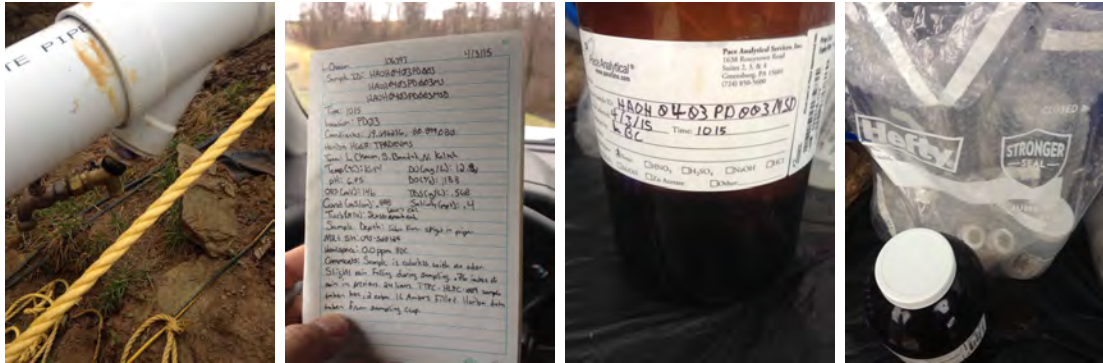
GPS: 39.69624, -80.89908

Location Description: Pad Sample - 200 yards SW downhill from pad. [Outfall Location]

Observation Type: Sample-Pickup

Observation Subtype: Surface Water

Comments: Water is colorless with no odor. Slight rain falling during sampling. .76 inches of rain in last 24 hours. TTPC HLPC 009 method taken here. 2 extra ambers. Horiba data from cup and water taken from spigot in pipe.



ID: 141178

Date: 2015/04/03 10:15

Primary Identifier: HAOH0403PD003MS

Secondary Identifier: PD03

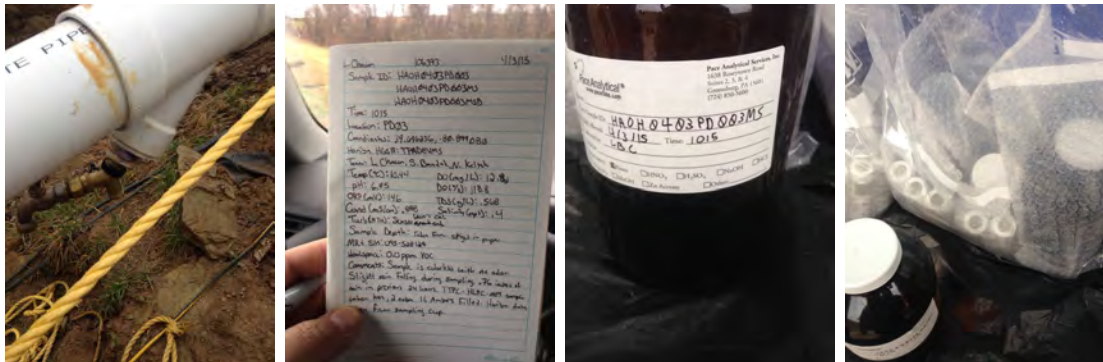
GPS: 39.69624, -80.89908

Location Description: Pad Sample - 200 yards SW downhill from pad. [Outfall Location]

Observation Type: Sample-Pickup

Observation Subtype: Surface Water

Comments: Water is colorless with no odor. Slight rain falling during sampling. .76 inches of rain in last 24 hours. TTPC HLPC 009 method taken here. 2 extra ambers. Horiba data from cup and water taken from spigot in pipe.



ID: 141180

GPS: 39.69624, -80.89908

Date: 2015/04/03
10:15

Location Description: Pad Sample - 200 yards SW downhill from pad. [Outfall Location]

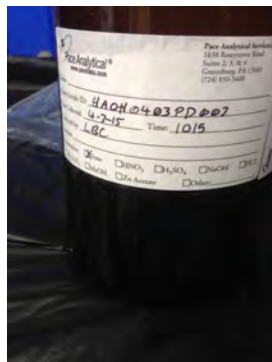
Primary Identifier: HAOH0403PD003

Observation Type: Sample-Pickup

Secondary Identifier: PD03

Observation Subtype: Surface Water

Comments: Water is colorless with no odor. Slight rain falling during sampling. .76 inches of rain in last 24 hours. TTPC HLPC 009 method taken here. 2 extra ambers. Horiba data from cup and water taken from spigot in pipe.



ID: 141181

GPS: 39.69875, -80.89899

Date: 2015/04/03 10:55

Location Description: Sump 13

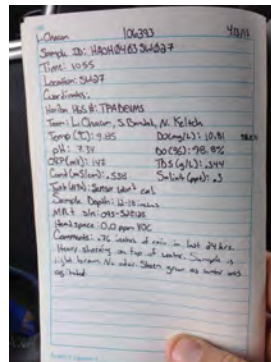
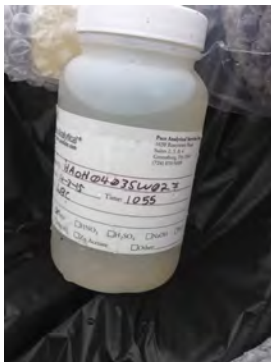
Primary Identifier: HAOH0403SW027

Observation Type: Sample-Pickup

Secondary Identifier: SW27

Observation Subtype: Surface Water

Comments: .76 inches of rain in last 24 hours. Moderate to heavy sheen on top as water was agitated. No odor in sample.



ID: 141176

GPS:

Date: 2015/04/03 12:28

Location Description:

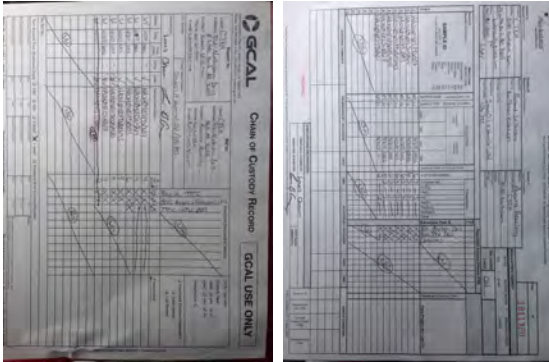
Primary Identifier:

Observation Type: Chain Of Custody

Secondary Identifier:

Observation Subtype: COC

Comments:



ID: 141182

GPS:

Date: 2015/04/03 12:47

Location Description:

Primary Identifier: HAOH0403TB001

Observation Type: Sample-Pickup

Secondary Identifier: Blank

Observation Subtype: Blank Water

Comments:



Ohio Operations Incident Daily Site Activities - 04/04/2015

ID: 141193

GPS: 39.73848, -80.85257

Date: 2015/04/04
10:10

Location Description: Confluence of opossum creek and Ohio river.
[Surface Water/Sediment]

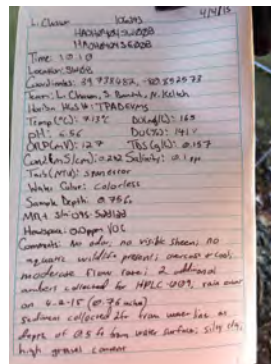
Primary Identifier: HAOH0404SE008

Observation Type: Sample-Pickup

Secondary Identifier: SW08

Observation Subtype: Sediment

Comments: Sample collected about 2 feet from water line; high gravel content; silty clay;



ID: 141192

GPS: 39.73848, -80.85257

Date: 2015/04/04 10:10

Location Description: Confluence of opossum creek and Ohio river.
[Surface Water/Sediment]

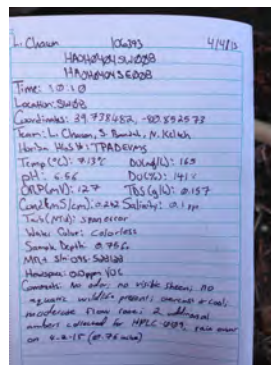
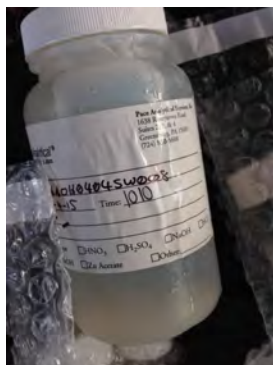
Primary Identifier: HAOH0404SW008

Observation Type: Sample-Pickup

Secondary Identifier: SW08

Observation Subtype: Surface Water

Comments: Horiba HGS TPADEVMS; MR S/N 095-528128; no odor; no visible sheen; no aquatic wildlife present; overcast and cool; turbidity sensor span error; moderate flow rate; HPLC-009 sample collected; rain event on 4/2/15 0.76";



ID: 141194

GPS: 39.71111, -80.88792

Date: 2015/04/04
11:05

Location Description: End of hwy 404 on Opossum Creek. [Surface Water/Sediment]

Primary Identifier: HAOH0404SE004

Observation Type: Sample-Pickup

Secondary Identifier: SW04

Observation Subtype: Sediment

Comments: Sample collect about 2 feet from water line; silty sand; high pebble content;



ID: 141196

GPS: 39.71111, -80.88786

Date: 2015/04/04 11:05

Location Description: End of hwy 404 on Opossum Creek. [Surface Water/Sediment]

Primary Identifier: HAOH0404SW004

Observation Type: Sample-Pickup

Secondary Identifier: SW04

Observation Subtype: Surface Water

Comments: Horiba HGS TPADEVMS; MR S/N 095-528128; no odor; no visible sheen; no aquatic wildlife present; overcast and cool; turbidity sensor span error; moderate foam/bubbles; high flow rate following rain event on 4/2/15 (0.76")



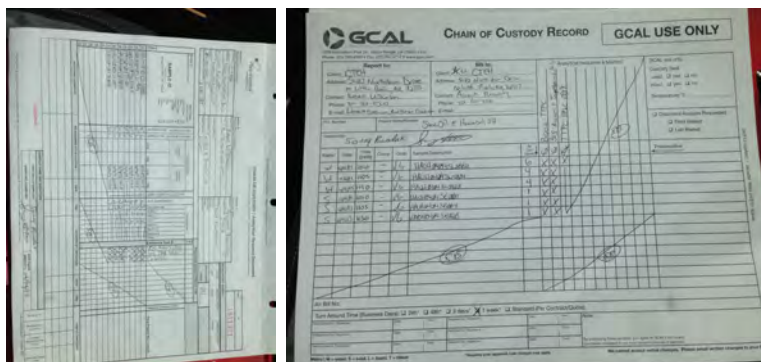
ID: 141197 **GPS:** 39.7143, -80.89725
Date: 2015/04/04 11:50 **Location Description:** [Surface Water/Sediment]
Primary Identifier: HAOH0404SE020 **Observation Type:** Sample-Pickup
Secondary Identifier: SW20 **Observation Subtype:** Sediment
Comments: Sample collected 3 feet from waterline; sandy silt composition with high gravel content;



ID: 141195 **GPS:** 39.71429, -80.89729
Date: 2015/04/04 11:50 **Location Description:** [Surface Water/Sediment]
Primary Identifier: HAOH0404SW020 **Observation Type:** Sample-Pickup
Secondary Identifier: SW20 **Observation Subtype:** Surface Water
Comments: Horiba HGS TPADEVMS; MR S/N 095-528128; no odor; no visible sheen; no aquatic wildlife present; sunny and cool; turbidity sensor span error; rain event on 4/2/15 (0.76");



ID: 141191 **GPS:**
Date: 2015/04/04 13:53 **Location Description:**
Primary Identifier: Pace and GCAL COCs **Observation Type:** Chain Of Custody
Secondary Identifier: **Observation Subtype:** COC
Comments:



ID: 141200

GPS:

Date: 2015/04/04 15:44

Location Description:

Primary Identifier: HAOH0404TB001

Observation Type: Sample-Pickup

Secondary Identifier: Blank

Observation Subtype: Blank Water

Comments:



Ohio Operations Incident Daily Site Activities - 04/05/2015

ID: 141201

Date: 2015/04/05
09:35

Primary Identifier: HAOH0405SE006

Secondary Identifier: SW06

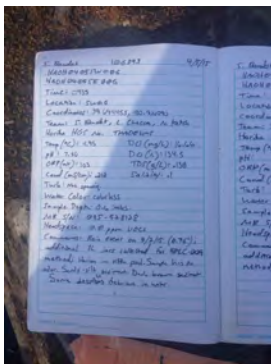
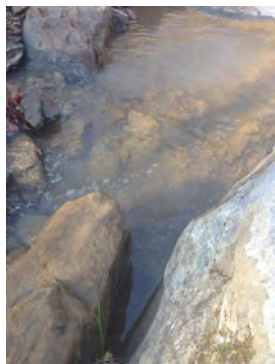
GPS: 39.69445, -80.90409

Location Description: Downstream of creek that confluent with ditch that runs by site. [Surface Water/Sediment]

Observation Type: Sample-Pickup

Observation Subtype: Sediment

Comments: Sediment is dark brown with no odor. Composed of sandy silt. Some detritus in water.



ID: 141208

Date: 2015/04/05 09:35

Primary Identifier: HAOH0405SW006

Secondary Identifier: SW06

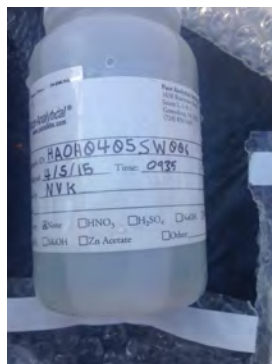
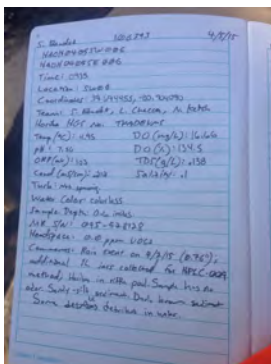
GPS: 39.69445, -80.90409

Location Description: Downstream of creek that confluent with ditch that runs by site. [Surface Water/Sediment]

Observation Type: Sample-Pickup

Observation Subtype: Surface Water

Comments: Sample is colorless and odorless. Horiba readings taken in riffle pool. Some detritus in water.



ID: 141205

GPS: 39.69427, -80.90369

Date: 2015/04/05 09:55

Location Description: [Surface Water/Sediment]

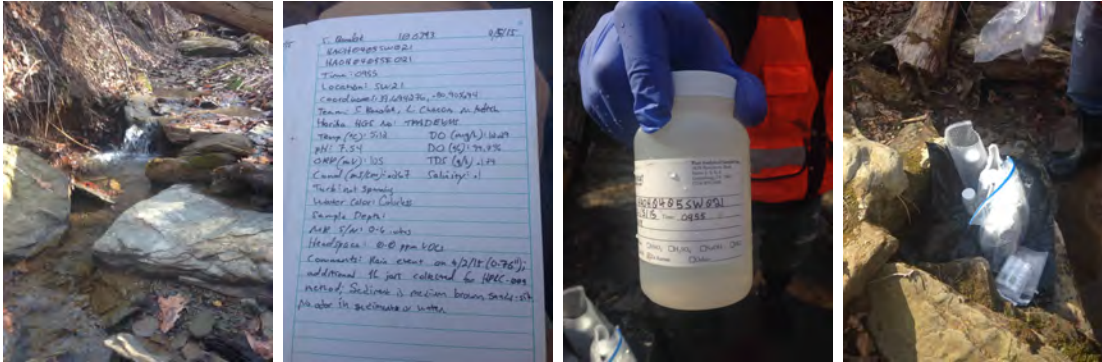
Primary Identifier: HAOH0405SW021

Observation Type: Sample-Pickup

Secondary Identifier: SW21

Observation Subtype: Surface Water

Comments: Water is colorless and odorless. 0-6 inches of water. Some detritus in water near sample location.



ID: 141209

GPS: 39.69427, -80.90369

Date: 2015/04/05 09:55

Location Description: [Surface Water/Sediment]

Primary Identifier: HAOH0405SE021

Observation Type: Sample-Pickup

Secondary Identifier: SW21

Observation Subtype: Sediment

Comments: Sediment is medium brown sandy silt with no odor. Small rocks in sediment.



ID: 141207

GPS: 39.69643, -80.90524

Date: 2015/04/05 10:20

Location Description:

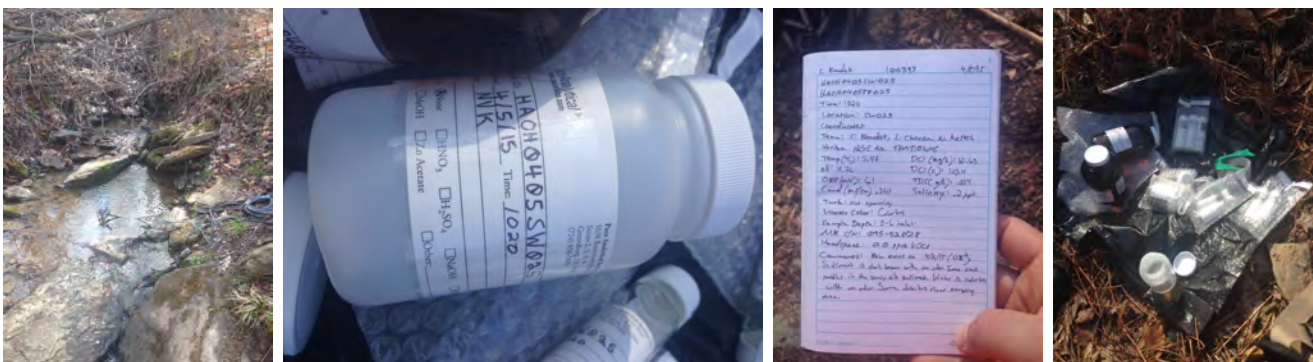
Primary Identifier: HAOH0405SW025

Observation Type: Sample-Pickup

Secondary Identifier: SW25

Observation Subtype: Surface Water

Comments: Water is colorless and odorless. Some detritus in stream.



ID: 141211

GPS: 39.69643, -80.90524

Date: 2015/04/05 10:20

Location Description:

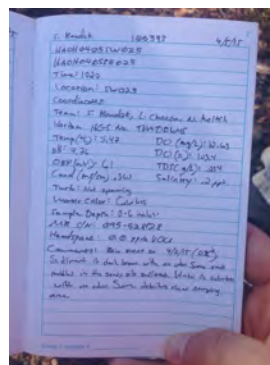
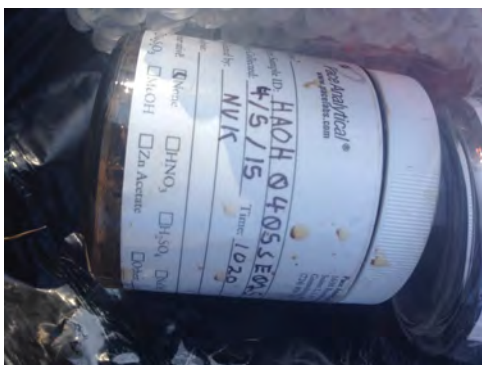
Primary Identifier: HAOH0405SE025

Observation Type: Sample-Pickup

Secondary Identifier: SW25

Observation Subtype: Sediment

Comments: Sediment is medium brown sandy silt with small pebbles. No odors. Top few inches of sediment taken.



ID: 141203

GPS: 39.71036, -80.90376

Date: 2015/04/05 11:20

Location Description: [Surface Water/Sediment]

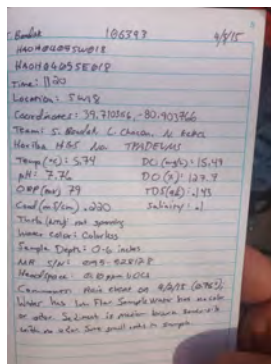
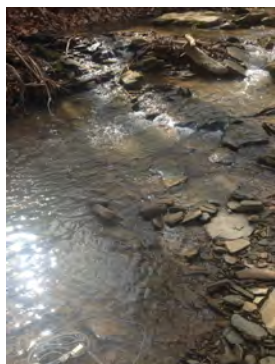
Primary Identifier: HAOH0405SW018

Observation Type: Sample-Pickup

Secondary Identifier: SW18

Observation Subtype: Surface Water

Comments: Water is colorless with no odor. Creek has low flow.



ID: 141210

GPS: 39.71036, -80.90376

Date: 2015/04/05 11:20

Location Description: [Surface Water/Sediment]

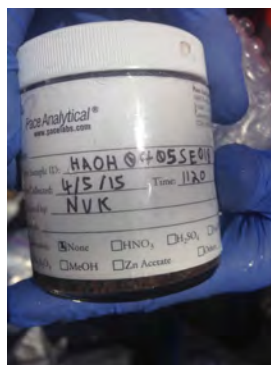
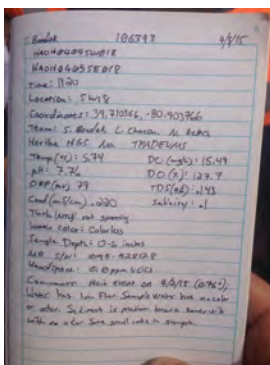
Primary Identifier: HAOH0405SE018

Observation Type: Sample-Pickup

Secondary Identifier: SW18

Observation Subtype: Sediment

Comments: Medium brown sandy silt with no odor. Some small pebbles in sample.



ID: 141202

GPS: 39.70255, -80.90683

Date: 2015/04/05 12:00

Location Description: [Surface Water/Sediment]

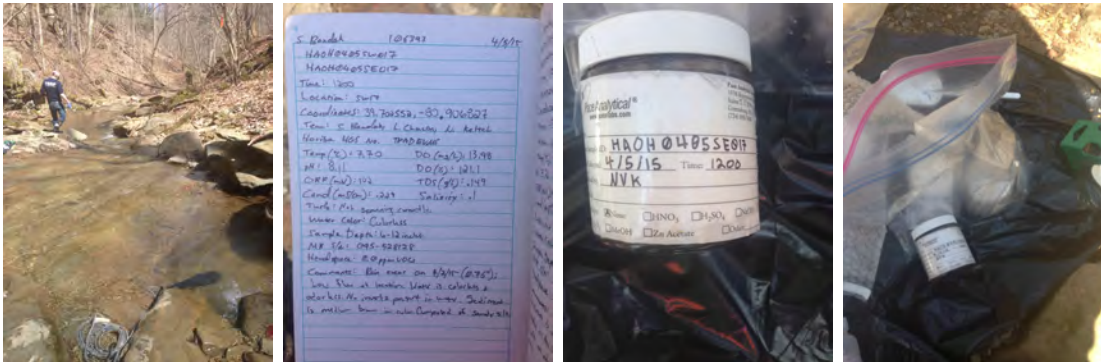
Primary Identifier: HAOH0405SE017

Observation Type: Sample-Pickup

Secondary Identifier: SW17

Observation Subtype: Sediment

Comments: Sediment is medium brown with no odor. Composed of sandy silt with some small pebbles.



ID: 141206

GPS: 39.70255, -80.90683

Date: 2015/04/05 12:00

Location Description: [Surface Water/Sediment]

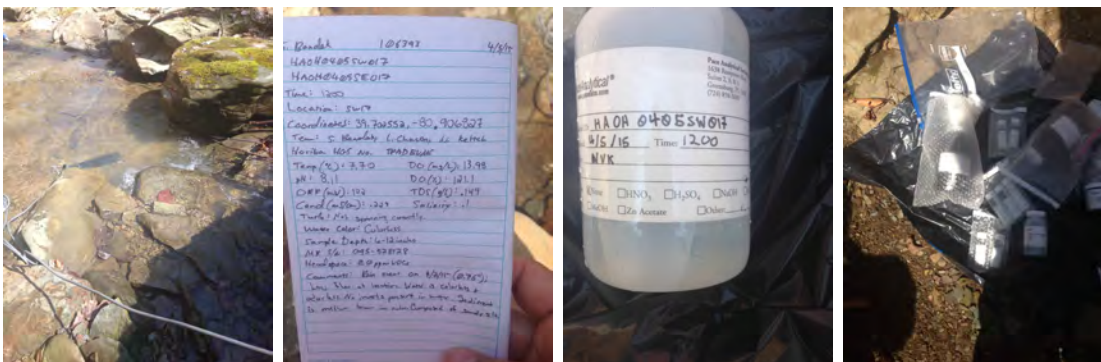
Primary Identifier: HAOH0405SW017

Observation Type: Sample-Pickup

Secondary Identifier: SW17

Observation Subtype: Surface Water

Comments: Water is colorless with no odor. Low flow at sample location no inverts noticed in water.



ID: 141204

GPS:

Date: 2015/04/05 13:27

Location Description:

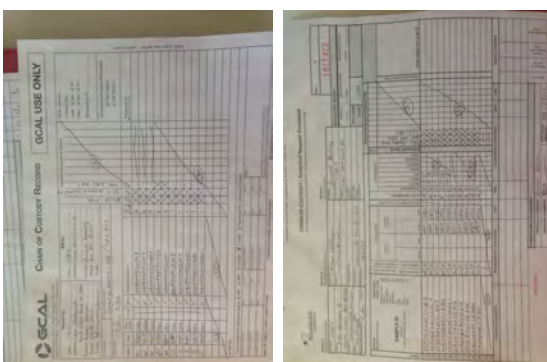
Primary Identifier:

Observation Type: Chain Of Custody

Secondary Identifier:

Observation Subtype: COC

Comments:



Ohio Operations Incident Daily Site Activities - 04/06/2015

ID: 141214

GPS: 39.69857, -80.90027

Date: 2015/04/06 09:30

Location Description: Pad Sample - [Outfall Location]

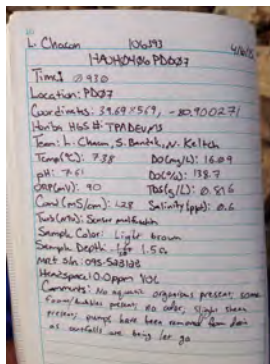
Primary Identifier: HAOH0406PD007

Observation Type: Sample-Pickup

Secondary Identifier: PD07

Observation Subtype: Surface Water

Comments: Horiba HGS no TPADEVMS; MR S/N 095-528128; no odor; visible sheen; no aquatic organisms present; some foam/bubbles; turbidity span error; pumps removed from drain as outfalls are being let out;



ID: 141218

GPS: 39.69816, -80.90108

Date: 2015/04/06 09:50

Location Description: [Surface Water/Sediment]

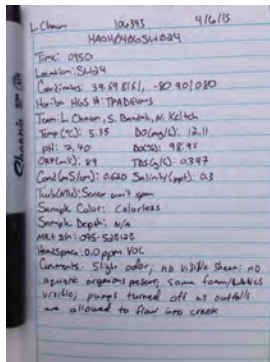
Primary Identifier: HAOH0406SW024

Observation Type: Sample-Pickup

Secondary Identifier: SW24

Observation Subtype: Surface Water

Comments: Horiba HGS no TPADEVMS; MR S/N 095-528128; slight odor; no visible sheen; no aquatic organisms present; some foam/bubbles; turbidity span error; pumps turned off as outfalls are being released



ID: 141220

GPS: 39.69633, -80.89904

Date: 2015/04/06
10:10

Location Description: Pad Sample - 200 yards SW downhill from pad. [Outfall Location]

Primary Identifier: HAOH0406PD003

Observation Type: Sample-Pickup

Secondary Identifier: PD03

Observation Subtype: Surface Water

Comments: Horiba HGS no TPADEVMS; MR S/N 095-528128; no odor; sample collected from spout in PVC pipe leading to plastic tote; turbidity span error; pumps removed from tote as outfalls are being released;



ID: 141219

GPS: 39.69875, -80.89886

Date: 2015/04/06 10:30

Location Description: Sump 13

Primary Identifier: HAOH0406SW027

Observation Type: Sample-Pickup

Secondary Identifier: SW27

Observation Subtype: Surface Water

Comments: Horiba HGS no TPADEVMS; MR S/N 095-528128; no odor; slight sheen visible; no aquatic organisms present; no foam/bubbles; turbidity span error; pump turned off as outfalls are being released; 2 additional 1L ambers collected for HPLC-009 method



ID: 141221

GPS: 39.69875, -80.89886

Date: 2015/04/06 10:30

Location Description: Sump 13

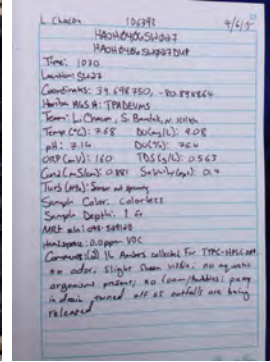
Primary Identifier: HAOH0406SW027DUP

Observation Type: Sample-Pickup

Secondary Identifier: SW27

Observation Subtype: Surface Water

Comments: Horiba HGS no TPADEVMS; MR S/N 095-528128; no odor; slight sheen visible; no aquatic organisms present; no foam/bubbles; turbidity span error; pump turned off as outfalls are being released; 2 additional 1L ambers collected for HPLC-009 method;



ID: 141215

GPS:

Date: 2015/04/06 10:42

Location Description:

Primary Identifier: HAOH0406TB001

Observation Type: Sample-Pickup

Secondary Identifier: Blank

Observation Subtype: Blank Water

Comments: Pace trip blank



ID: 141217

GPS:

Date: 2015/04/06 10:44

Location Description:

Primary Identifier: HAOH0406TB002

Observation Type: Sample-Pickup

Secondary Identifier: Blank

Observation Subtype: Blank Water

Comments: GCAL trip blank



ID: 141216

GPS:

Date: 2015/04/06 11:20

Location Description:

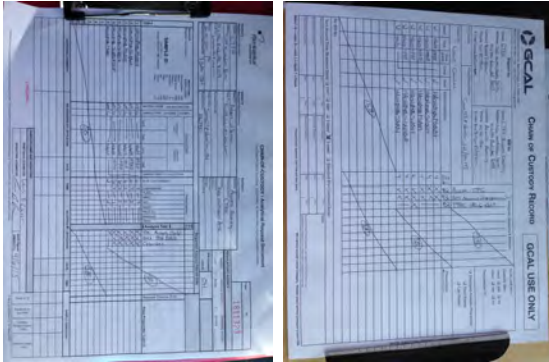
Primary Identifier: Pace and GCAL COCs

Observation Type: Chain Of Custody

Secondary Identifier:

Observation Subtype: COC

Comments:



Ohio Operations Incident Daily Site Activities - 04/07/2015

ID: 141250

GPS: 39.71117, -80.88779

Date: 2015/04/07 10:30

Location Description: End of hwy 404 on Opossum Creek. [Surface Water/Sediment]

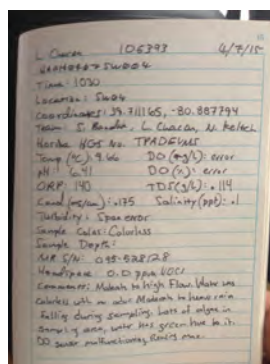
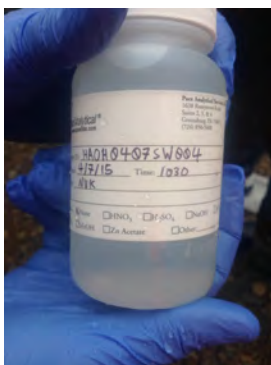
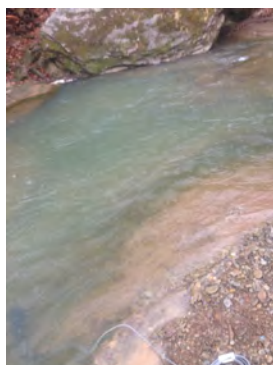
Primary Identifier: HAOH0407SW004

Observation Type: Sample-Pickup

Secondary Identifier: SW04

Observation Subtype: Surface Water

Comments: Moderate to high flow. Water was colorless with no odor. Lots of algae present in sample area. Moderate to heavy rain falling during sampling. DO sensor malfunctioned during sampling and read 50.0 mg/L which is max.



ID: 141251

GPS: 39.73848, -80.8524

Date: 2015/04/07 10:50

Location Description: Confluence of opossum creek and Ohio river. [Surface Water/Sediment]

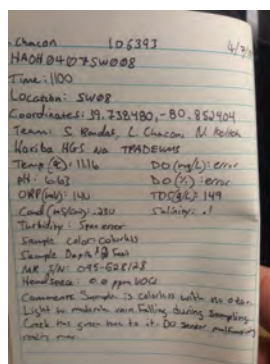
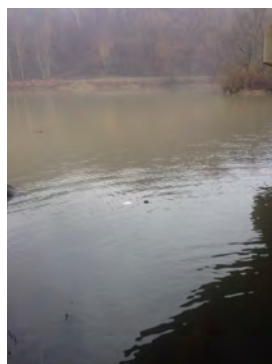
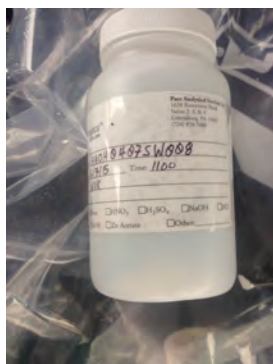
Primary Identifier: HAOH0407SW008

Observation Type: Sample-Pickup

Secondary Identifier: SW08

Observation Subtype: Surface Water

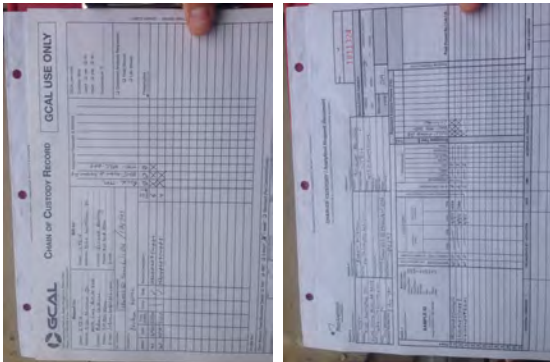
Comments: Sample is colorless with no odor. Light to moderate rain falling during sampling. DO sensor malfunctioning, reading max. Body of water has green appearance.



ID: 141253 **GPS:**
Date: 2015/04/07 11:25 **Location Description:**
Primary Identifier: HAOH0407TB001 **Observation Type:** Sample-Pickup
Secondary Identifier: PACE Trip Blank **Observation Subtype:** Blank Water
Comments:



ID: 141249 **GPS:**
Date: 2015/04/07 11:36 **Location Description:**
Primary Identifier: **Observation Type:** Chain Of Custody
Secondary Identifier: **Observation Subtype:** COC
Comments:



Ohio Operations Incident Daily Site Activities - 04/08/2015

GPS: 39.69474, -80.90408

ID: 141269

Date: 2015/04/08 09:35

Primary Identifier: HAOH0408SW006

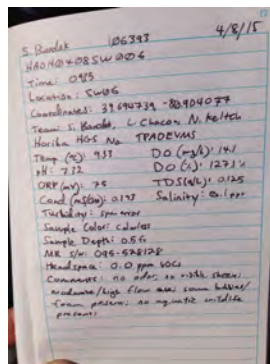
Secondary Identifier: SW06

Location Description: Downstream of creek that confluent with ditch that runs by site. [Surface Water/Sediment]

Observation Type: Sample-Pickup

Observation Subtype: Surface Water

Comments: Horiba HGS No TPADEVMS; MR S/N 095-528128; no odor; no visible sheen; moderate to high flow rate; some bubbles/foam visible; sunny; leaf litter present; no aquatic wildlife visible; turbidity span error



ID: 141268

GPS: 39.69423, -80.90366

Date: 2015/04/08 09:45

Primary Identifier: HAOH0408SW021

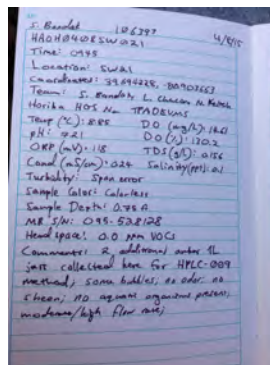
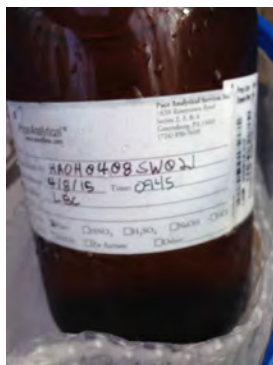
Secondary Identifier: SW21

Location Description: [Surface Water/Sediment]

Observation Type: Sample-Pickup

Observation Subtype: Surface Water

Comments: Horiba HGS No TPADEVMS; MR S/N 095-528128; no odor; no visible sheen; moderate to high flow rate; some bubbles/foam visible; sunny; leaf litter present; no aquatic wildlife visible; turbidity span error; HPLC-009 1L ambers collected at this site;



ID: 141271

GPS: 39.69672, -80.90505

Date: 2015/04/08 10:10

Location Description:

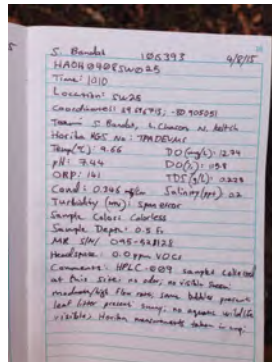
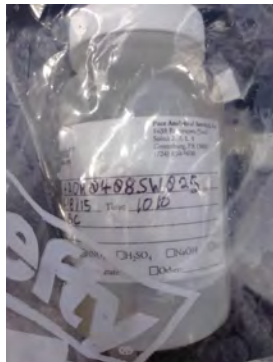
Primary Identifier: HAOH0408SW025

Observation Type: Sample-Pickup

Secondary Identifier: SW25

Observation Subtype: Surface Water

Comments: Horiba HGS No TPADEVMS; MR S/N 095-528128; no odor; no visible sheen; moderate to high flow rate; some bubbles/foam visible; sunny; leaf litter present; no aquatic wildlife visible; turbidity span error; Horiba measurements taken in cup; HPLC sample collected here



ID: 141272

GPS: 39.71003, -80.90336

Date: 2015/04/08 11:20

Location Description: [Surface Water/Sediment]

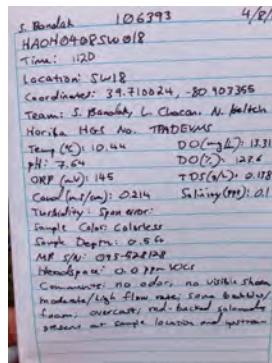
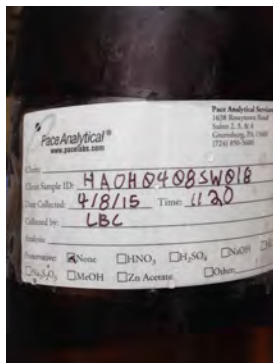
Primary Identifier: HAOH0408SW018

Observation Type: Sample-Pickup

Secondary Identifier: SW18

Observation Subtype: Surface Water

Comments: Horiba HGS No TPADEVMS; MR S/N 095-528128; no odor; no visible sheen; moderate to high flow rate; some bubbles/foam visible; overcast; red-backed salamanders present at sampling site and upstream; turbidity span error



ID: 141270

GPS: 39.70282, -80.90678

Date: 2015/04/08 12:00

Location Description: [Surface Water/Sediment]

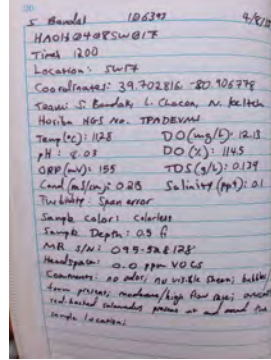
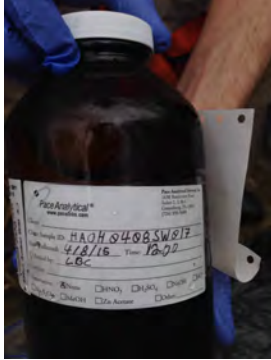
Primary Identifier: HAOH0408SW017

Observation Type: Sample-Pickup

Secondary Identifier: SW17

Observation Subtype: Surface Water

Comments: Horiba HGS No TPADEVMS; MR S/N 095-528128; no odor; no visible sheen; moderate to high flow rate; some bubbles/foam visible; overcast; red-backed salamanders present at sample location; turbidity span error



ID: 141281

GPS:

Date: 2015/04/08 14:44

Location Description:

Primary Identifier: HAOH0408TB001

Observation Type: Sample-Pickup

Secondary Identifier: Blank

Observation Subtype: Blank Water

Comments: Pace Trip blank



ID: 141282

GPS:

Date: 2015/04/08 14:51

Location Description:

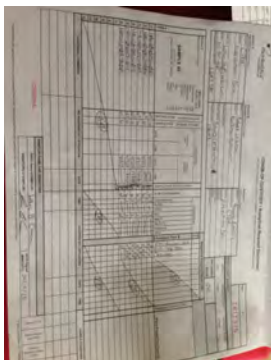
Primary Identifier: Pace and GCAL COCs

Observation Type: Chain Of Custody

Secondary Identifier:

Observation Subtype: COC

Comments:



APPENDIX B

ODNR SIR Addendum

April 14, 2015

Mr. Rick Tripple
Ohio Department of Natural Resources
Division of Oil and Gas Resources Management
2045 Morse Road
Building F2
Columbus, Ohio 43229-6693

RE: STATOIL USA ONSHORE PROPERTIES, INC.
EISENBARTH WELL PAD
SITE INVESTIGATION REPORT ADDENDUM

Dear Sir,

Statoil USA Onshore Properties, Inc. (Statoil) is submitting this Addendum to the March 10, 2015 Site Investigation Report (SIR). This Addendum details field investigation findings and recommended actions based on additional groundwater samples that were collected at select soil borings on and around the Eisenbarth Pad in March 2015. In total, fifteen (15) water quality samples were collected and analyzed for previously established potential onsite constituents (POSC). The analytical data from the March 2015 sampling event was then compared to groundwater quality data from the same sample collection points evaluated in December 2014. The sample locations in relation to groundwater flow are detailed on the **Figure 1** groundwater contour map. The results of the March 2015 laboratory analysis are summarized and compared to the December 2014 data in **Table 1**.

The collected samples were analyzed for Volatile Organic Compounds (VOCs), Semi-Volatile Organic Compounds (SVOCs), petroleum distillates, pH, Isopropanol (isopropyl alcohol), and tributyl tetradecyl phosphonium chloride (TTPC). For the fourteen (14) parent samples collected between March 18 and 19, 2015, one (1) field duplicate was collected and submitted for laboratory analysis to verify the reproducibility of the sampling and analytical methods. The field duplicate sample was collected from the SB-31 location and indicated no anomalous or significant fluctuation in the majority of laboratory analytical data between the respective parent and duplicate sample.

A low level of TTPC at 0.778 µg/L, however, was detected in the SB-31 duplicate sample. Since TTPC was non-detect in the SB-31 parent and all other groundwater samples collected in March 2015, the SB-31 duplicate was retested to confirm the TTPC level. The retested sample showed that TTPC was non-detect. Results for this additional sample are also provided in **Table 1**. No groundwater samples collected in December 2014 or March 2015 exceeded the TTPC screening level.

Drinking water standards (DWS) were chosen as a screening level for groundwater investigations. The pH level for groundwater sample locations GP-23, GP-26, SB-27, and SB-31 (and SB-31 duplicate) were detected below the DWS range (6.5 – 8.5 S.U.) during laboratory analysis. However, the pH DWS range was established for potable, public water supplies.

Detections of pH at 5.81, 5.96, 6.03, and 6.43 (6.41) S.U., in a non-potable groundwater sampling station (with noted weathered shale in the soil boring log) is within the normal and expected range. Further, these four (4) sampling locations had pH levels within the DWS range during the December 2014 sampling event.

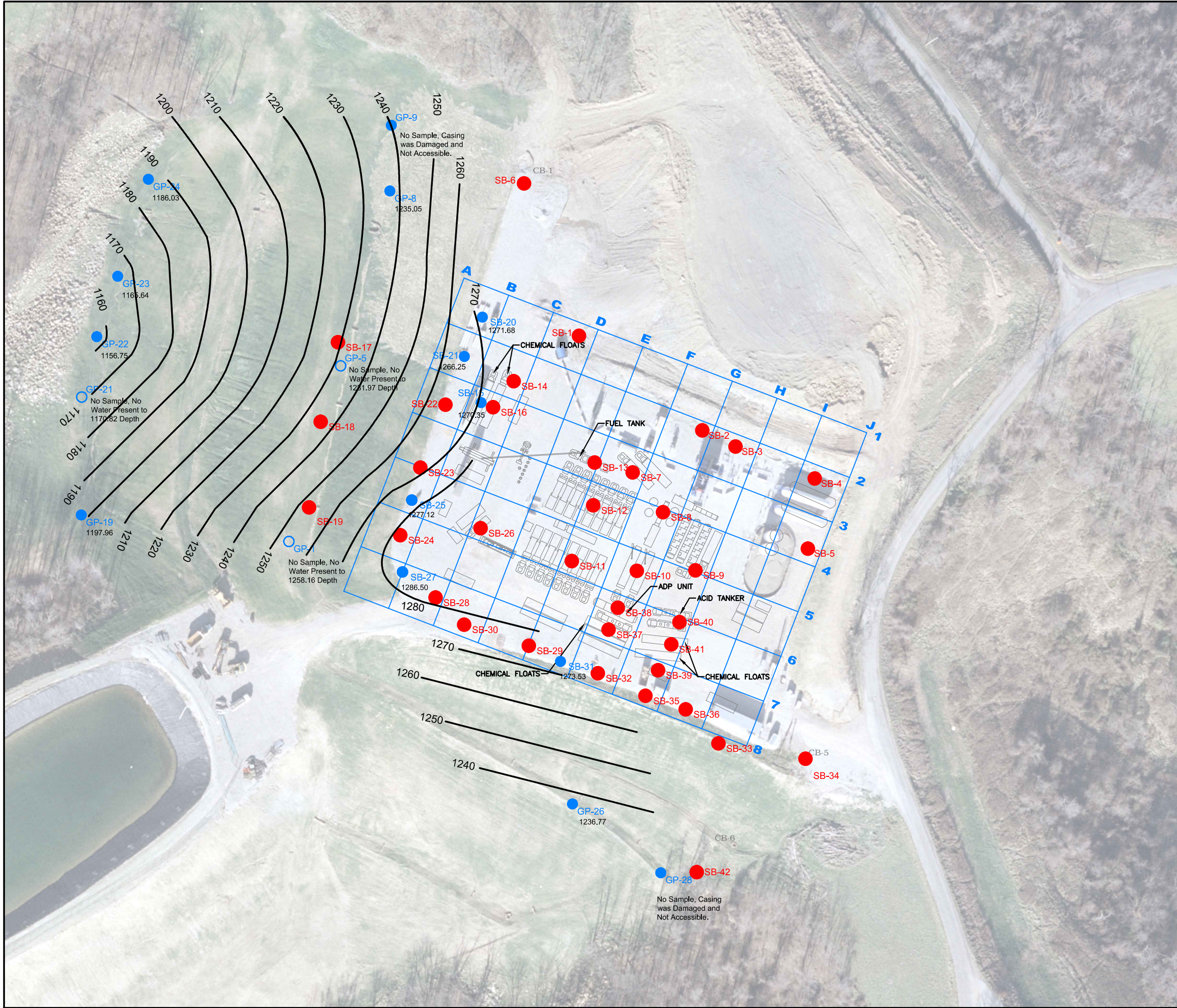
No other parameters tested exceeded DWS during the groundwater sampling events conducted at the monitoring wells and piezometers in March 2015. No water quality samples show any elevated parameters above action levels.

In summary, groundwater samples indicate no presence of any POSC above screening and action levels. Based on the results of this comparison, it is apparent that conditions at the site are naturally attenuating and that there are no impacts to the soil, stream, sediment, or water related to the June 2014 incident on the Eisenbarth Well Pad. Therefore, consistent with the analysis presented in the SIR, based on the data presented in this Addendum, no further investigation or on-site remedial action is warranted.

Sincerely,



Steve Tink
Marcellus SSU Leader
Statoil USA Onshore Properties, Inc.
Phone 512-427-3404
Cell: 281-352-1140
E-mail: ritin@statoil.com

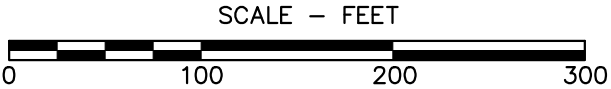


LEGEND

- SB- COMPLETED SAMPLE LOCATION
- SB- MONITOR WELL LOCATION
GROUNDWATER ELEVATION
- SB-25 DRY LOCATION
- GP- PIEZOMETER LOCATION
GROUNDWATER ELEVATION
- GP-21 DRY LOCATION

1250 ————— GROUNDWATER ELEVATION

GROUNDWATER DATA COLLECTED 03/17/2015



EISENBARTH WELL PAD SITE
FIGURE 1
GROUNDWATER CONTOUR MAP
HANNIBAL, OHIO

PREPARED FOR
STATOIL USA ONSHORE PROPERTIES INC.
HOUSTON, TEXAS

APPROVED	MSK XX/XX/XX
CHECKED	MSK XX/XX/XX
DRAWN	DJW 3/27/15
DRAWING NUMBER	
NM006484-02	



STATOIL USA ONSHORE PROPERTIES INC.

EISENBARTH PAD WATER SAMPLING DATA COMPARISON - TABLE 1

Analyte	Ohio EPA Ground Water	Units	Sample ID	GP 08	GP 08	SB 15	SB 15	GP 19	GP 19	SB 20	SB 20	SB 20 DUP-5	SB 21	SB 21	GP 22	GP 22	GP 23	GP 23
			Date	12/17/2014	3/19/2015	12/18/2014	3/19/2015	12/17/2014	3/19/2015	12/18/2014	3/18/2015	12/18/2014	12/18/2014	3/18/2015	12/16/2014	3/18/2015	12/17/2014	3/18/2015
			Time	12:45	8:45	14:00	12:40	12:15	9:30	12:00	14:15	12:10	13:20	16:00	15:55		10:00	17:45
benzo(a)anthracene	0.034	µg/L		ND	ND	ND	ND	N/A	N/A	ND	ND	ND	ND	ND	N/A	Well Inaccessible	ND	ND
benzo(a)pyrene	0.2	µg/L		ND	ND	ND	ND	N/A	N/A	ND	ND	ND	ND	ND	N/A		ND	ND
benzo(b)fluoranthene	N/A	µg/L		ND	ND	ND	ND	N/A	N/A	ND	ND	ND	ND	ND	N/A		ND	ND
benzo(k)fluoranthene	0.34	µg/L		ND	ND	ND	ND	N/A	N/A	ND	ND	ND	ND	ND	N/A		ND	ND
chrysene	3.4	µg/L		ND	ND	ND	ND	N/A	N/A	ND	ND	ND	ND	ND	N/A		ND	ND
dibenzo(a,h)anthracene	0.0034	µg/L		ND	ND	ND	ND	N/A	N/A	ND	ND	ND	ND	ND	N/A		ND	ND
indeno(1,2,3-cd)pyrene	0.034	µg/L		ND	ND	ND	ND	N/A	N/A	ND	ND	ND	ND	ND	N/A		ND	ND
Acetone	14000	µg/L		3.4 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.8 J		ND	ND
Benzene	5	µg/L		ND	ND	ND	ND	ND	ND	0.63 J	ND	0.66 J	0.72 J	ND	ND		ND	ND
Toluene	1000	µg/L		ND	ND	ND	ND	1.8 J	ND	ND	ND	ND	0.41 J	ND	ND		ND	ND
Ethylbenzene	700	µg/L		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND
xylene, total	10000	µg/L		ND	ND	ND	ND	ND	ND	ND	ND	ND	1.0 J	ND	ND		ND	ND
Isopropylbenzene	450	µg/L		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND
naphthalene	40000	µg/L		ND	ND	ND	ND	ND	ND	0.88 J	ND	0.79 J	ND	ND	ND		ND	ND
isopropyl alcohol	N/A	µg/L		ND	ND	ND	ND	N/A	N/A	ND	ND	ND	ND	ND	N/A		ND	ND
pH	6.5-8.5	S.U.		7.09	6.79	7.30	6.85	N/A	N/A	7.10	6.90	7.06	6.97	6.76	N/A		6.66	5.81
TTPC	1	µg/L		ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		ND	ND

J = Analyte is present at an estimated concentration between the MDL and the Reporting Limit

Analyte detected outside of screening levels

N/A = Not Analyzed; Insufficient water present for full analytical suite

* = Parameter was re-run; both data results are reported

ND = Not Detected above the Method Detection Limit (MDL)

Analyte	Ohio EPA Ground Water	Units	Sample ID	GP 24	GP 24	SB 25	SB 25	GP 26	GP 26	SB 27	SB 27	GP 28	GP 28	SB 31	SB 31	SB 31 DUP	Outfall #1	Outfall #2	Outfall #5
			Date	12/17/2014	3/18/2015	12/18/2014	3/19/2015	12/17/2014	3/18/2015	12/18/2014	3/19/2015	12/16/2014	3/18/2015	12/18/2014	3/18/2015	3/18/2015	3/19/2015	3/19/2015	3/19/2015
			Time	9:15	17:45		12:10	8:10	18:50		12:05	13:55		8:50	10:25	12:00	11:30	10:00	11:00
benzo(a)anthracene	0.034	µg/L		ND	ND		ND	ND	ND		ND	N/A	Well Inaccessible	ND	ND	ND	ND	ND	ND
benzo(a)pyrene	0.2	µg/L		ND	ND		ND	ND	ND		ND	N/A		ND	ND	ND	ND	ND	ND
benzo(b)fluoranthene	N/A	µg/L		ND	ND		ND	ND	ND		ND	N/A		ND	ND	ND	ND	ND	ND
benzo(k)fluoranthene	0.34	µg/L		ND	ND		ND	ND	ND		ND	N/A		ND	ND	ND	ND	ND	ND
chrysene	3.4	µg/L		ND	ND		ND	ND	ND		ND	N/A		ND	ND	ND	ND	ND	ND
dibenzo(a,h)anthracene	0.0034	µg/L		ND	ND		ND	ND	ND		ND	N/A		ND	ND	ND	ND	ND	ND
indeno(1,2,3-cd)pyrene	0.034	µg/L		ND	ND		ND	ND	ND		ND	N/A		ND	ND	ND	ND	ND	ND
Acetone	14000	µg/L		ND	ND		ND	ND	ND		ND	ND		ND	ND	ND	ND	ND	ND
Benzene	5	µg/L		ND	ND		ND	ND	ND		ND	ND		ND	ND	ND	ND	ND	ND
Toluene	1000	µg/L		ND	ND		ND	ND	ND		ND	ND		ND	ND	ND	ND	ND	ND
Ethylbenzene	700	µg/L		ND	ND		ND	ND	ND		ND	ND		ND	ND	ND	ND	ND	ND
xylene, total	10000	µg/L		ND	ND		ND	ND	ND		ND	ND		1.0 J	ND	ND	ND	ND	ND
Isopropylbenzene	450	µg/L		ND	ND		ND	ND	ND		ND	ND		ND	ND	ND	ND	ND	ND
naphthalene	40000	µg/L		ND	ND		ND	ND	ND		ND	ND		ND	ND	ND	ND	ND	ND
isopropyl alcohol	N/A	µg/L		ND	ND		ND	ND	ND		ND	N/A		ND	ND	ND	ND	ND	ND
pH	6.5-8.5	S.U.		7.02	6.84		6.93	6.20	5.96		6.03	N/A		6.89	6.43	6.41	7.27	7.43	ND
TTPC	1	µg/L		ND	ND		ND	ND	ND		ND	N/A		ND	ND	0.778/ND*	ND	ND	ND

J = Analyte is present at an estimated concentration between the MDL and the Reporting Limit

Analyte detected outside of screening levels

N/A = Not Analyzed; Insufficient water present for full analytical suite

* = Parameter was re-run; both data results are reported

ND = Not Detected above the Method Detection Limit (MDL)